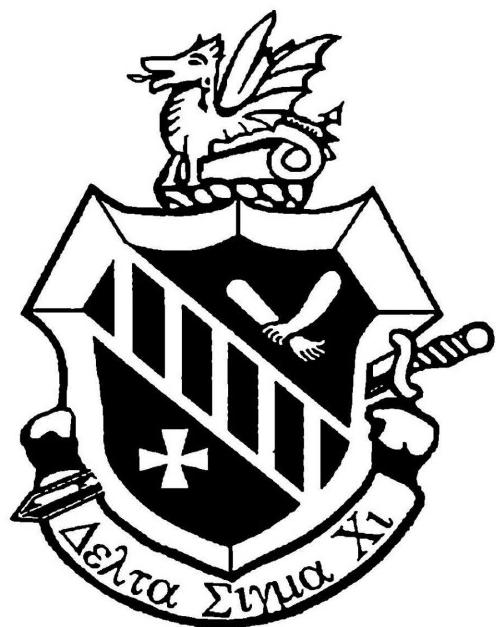


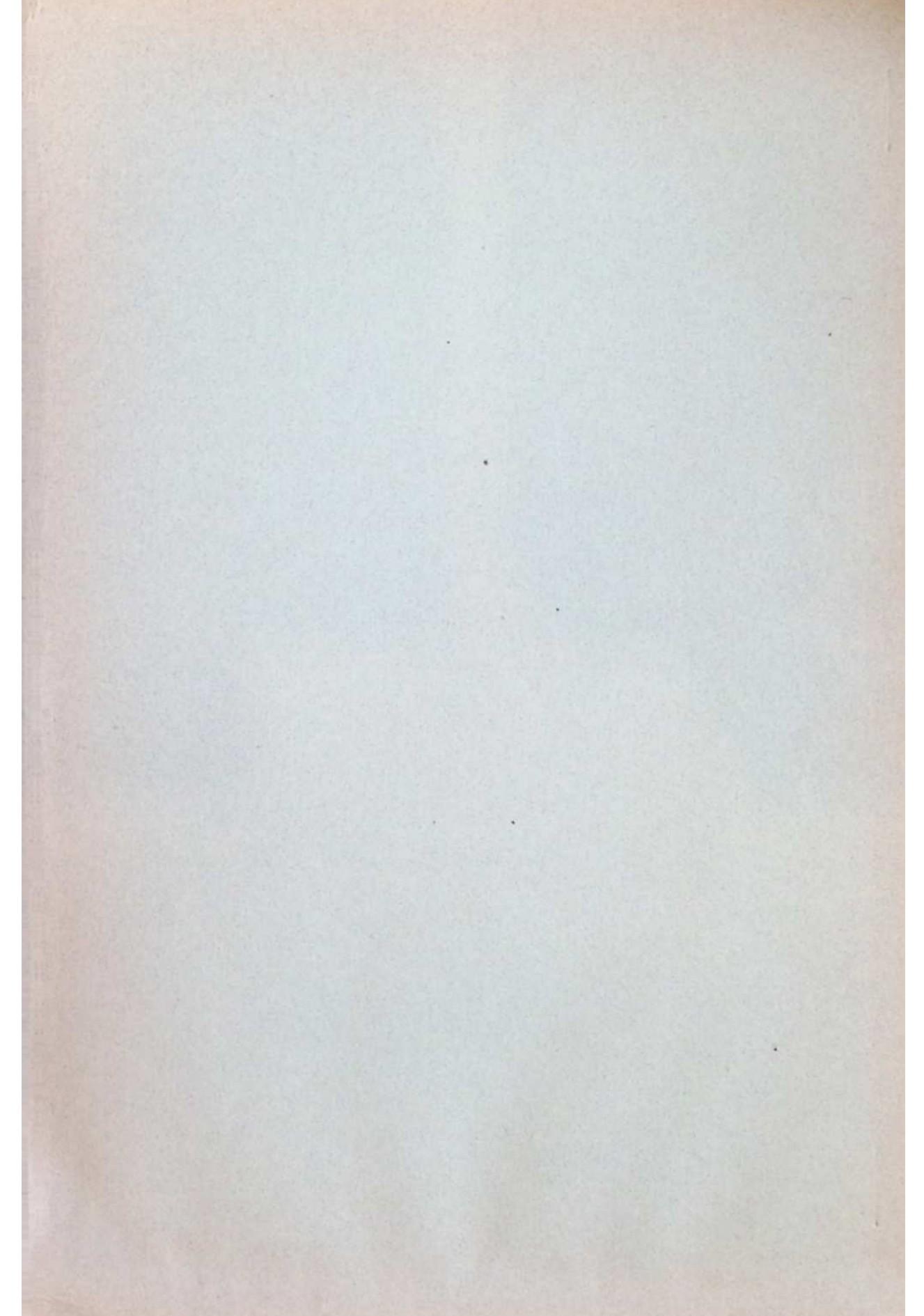
**THE ART
OF
CHIROPRACTIC**
BY
R. W. STEPHENSON

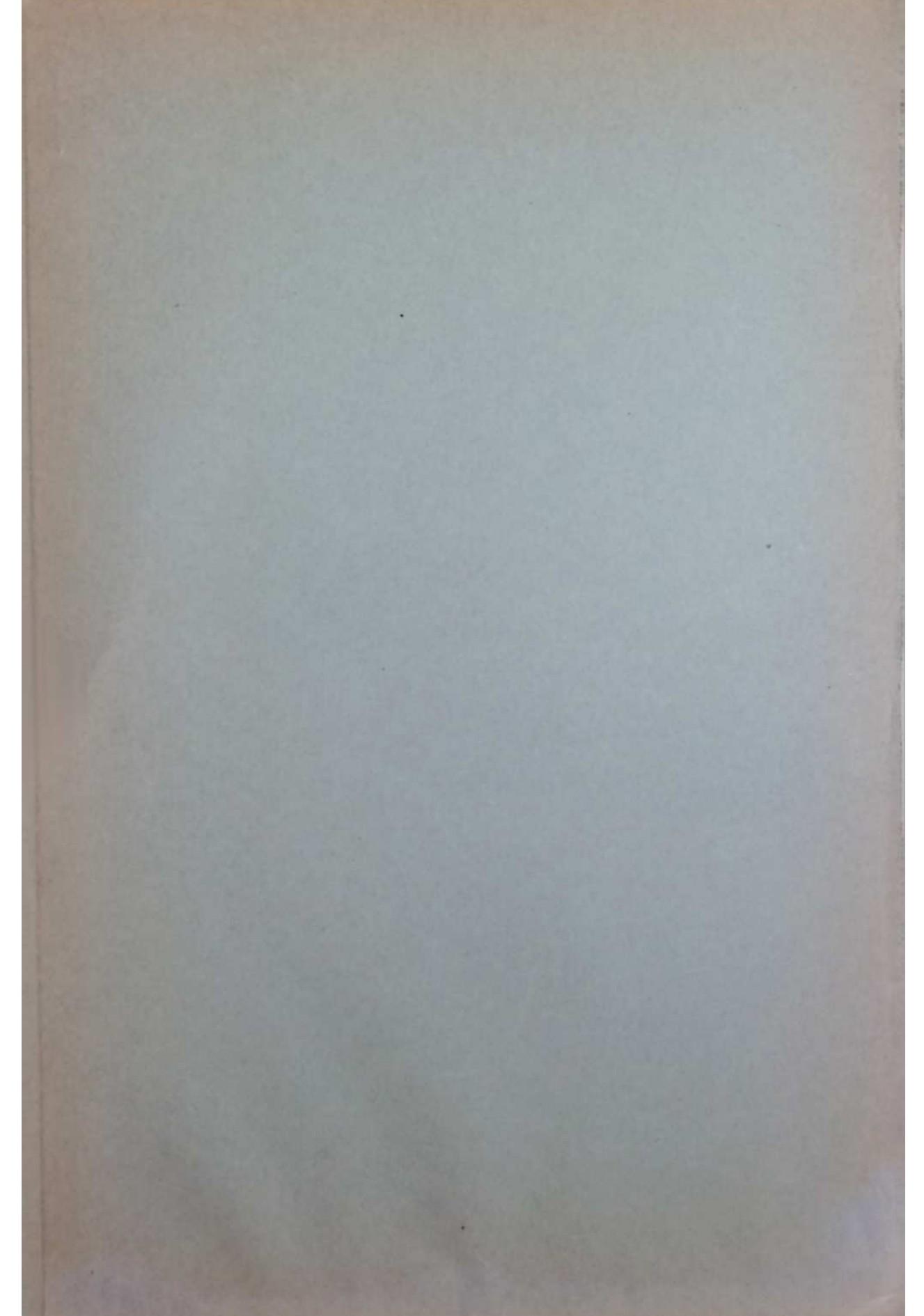
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THE ART *of* CHIROPRACTIC

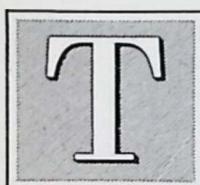
By R. W. STEPHENSON



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By R. W. Stephenson

Preface



HE writer has tried to prepare this book in an easy-going, colloquial manner in order that the student may easily understand it. Technical terms are used when unavoidable and where they are necessary for accuracy and brevity, especially where there is much repetition.

There are many repetitions to the point of monotony in the section on drills but where such occur the writer deemed it best to repeat in each drill minute instructions over and over, concerning the points that nearly all students do erroneously.

As far as was practicable, each drill was made a unit complete within itself. When this is done it is because some drills are so similar that a model will suffice for many. In all of them, reference is made to the models and to the principles and descriptions in the fore part of the book.

It would be impossible for the student to practice the drills intelligently without first studying the principles and descriptions. Later he can refer to a drill and find it easily by its title, read its main points and understand them if he knows the fundamentals beforehand.

Foreword



ANY subjects are vital, each in its relation to all others. None can afford to be ignored. That being true, it is hard to say any one is more important than any other because each has a direct relative bearing, in value, upon each other; but, if it was possible to say that one is more important than any other, then the art of adjusting is relatively very important.

Idea by idea, step by step, the various mooted subjects are being analyzed and deduced into strictly scientific applications. One of those which has been more mooted than any other, subject to greater variation, is the art of adjusting, more because no one person had yet risen in our ranks who could put the scientific application of scientific principles into a scientific art. At last this man has appeared —the author of this work.

The author of the work herein has given this scientific application practical study for several years, gradually shaping his ideas, assembling his facts, systematizing his methods of explanation until this work is now, beyond all question, the most exacting work of description upon the art of adjusting of any work I have ever seen. I have only one regret, in seeing this work appearing over his name, and that is that I did not possess the ability to do what he has done; but, that it is done is cause for extreme joy in Chiropractic ranks.

I regard this work as the finest and best work that has ever appeared on vertebral adjusting, giving us essentials alone, every fact strictly proven, minus goat-feathers, confining itself to demonstrated mechanistic principles which any scientist can read, try and find to be true.

When our ranks can get a few more men like Dr. Stephenson who will devote themselves as laboriously as he has done, and will then place his genius and ability into print as accurately as he has done, Chiropractic will come into its own as another one of the exact arts which will stand the exacting scrutiny of time.

If I could desire one wish, it would be that every chiropractor secure a copy of this work, study it intimately, sincerely and conscientiously, apply its teachings and, if he would, Chiropractic results would become more manifest and take another step forward increasing its percentage of successes.

B. J. PALMER

Introduction

AJUSTING is an art. It is the art of restoring a subluxated vertebra to its normal position, so that it no longer will be a cause of dis-ease. Hundreds of ways of adjusting have been devised since the discovery of Chiropractic. Moves came into vogue and went out of style with considerable speed. At last one came that was destined to stay, and still is in use. This is the one taught in The Palmer School of Chiropractic and used in its clinics. This is not the only move used by chiropractors but it is considered the best by the Leader of Chiropractic. Dr. Palmer does not object to any move that is safe and that accomplishes the adjustment of a subluxation.

There are fundamental principles clearly stated by the Founder, but dust-covered and forgotten through neglect and careless instruction. It is the purpose of this book to take the practitioner or the student back to these principles and their origin, to examine and study them as the Founder intended. We find that these principles are sound and in no wise changed. The methods of study and approach may be changed but a fundamental principle does not change. We see manifested the deep wisdom of Dr. Palmer in basing his principles of Chiropractic upon the intelligence of nature, knowing that he could not go wrong in doing so.

Dr. Palmer has always claimed that we should tend toward simplicity in Chiropractic rather than toward complexity. This applies to Technic as well as to other things in Chiropractic. The simple Toggle Recoil used on the simplest contact is the ideal adjustment. Few of us however, are able to reach that ideal as closely as the Founder, so we are obliged to use complications, in an attempt to help out. These complications are called "improvements" but really are not. They are such as the Lamina Contact and other "improved" contacts. The use of them does not alter the Toggle Recoil. In this book we shall study the Toggle Recoil as used with a variety of contacts.

Definitions and Principles

Art. 1. ART.

The technic of adjusting is art. The Palmer method of adjusting is the art of producing recoil or Innate contraction of forces.

Definition of art: "Skill in adaptation of things in the natural world to the uses of human life; human contrivance or ingenuity." "Skill, dexterity, or the power of performing certain actions, acquired by experience, study or observation; knack."

"The general principles of any branch of learning or of any developed craft; a system of rules or of organized modes of operation, serving to facilitate the performance of certain actions."

"Systematic application of knowledge or skill in effecting a desired result. Also, an occupation or business requiring such knowledge or skill." (Webster.)

A Chiropractor not only is a scientist but he should be an artist; skilled with mind and hands.

Art. 2. THE NORMAL POSITION OF A VERTEBRA.

A vertebra is in its normal position when it is in proper alignment; its articulations in proper apposition with those of the vertebra above or the one below or both; so that it does not press upon nerves and interfere with the transmission of mental impulses. The educated mind of a surgeon or even of a chiropractor does not know what this position is. No intellect knows the correct normal position of a vertebra except the Innate Intelligence of that body. Therefore, for a chiropractor to push, place or knock a vertebra into a place determined by his educated mind, is not Chiropractic but a crude attempt at surgery.

Art. 3. ABNORMAL POSITIONS OF VERTEBRAE.

A vertebra is in an abnormal position when it is out of proper alignment with the vertebra above or the one below or both; so that its articulations are not in proper apposition. These are classified as three kinds, according to degree; namely, fractures, dislocations, and subluxations. Fractures and dislocations are not in the realm of Chiropractic, so we have little to say about them. Subluxations are the physical representations of the cause of dis-ease, therefore are in the field of Chiropractic. Innate's opinion is the criterion of abnormal positions, or of normal positions

Art. 4. SUBLUXATIONS.

A subluxation is the condition of a vertebra that has lost its proper juxtaposition with the one above or the one below or both; to an extent less than a luxation (dislocation); which impinges nerves and interferes with the trans-

mission of mental impulses. All the factors of this definition must be given to make it complete and to make it Chiropractic, for unless it is the cause of dis-ease it is not a subluxation according to Chiropractic. Dislocations and fractures also can impinge nerves and interfere with the transmission of mental impulses but they are not for chiropractors to work with.

Art. 5. MOVES.

A move is a mechanical movement given by an adjustor with the intention of adjusting a subluxation.

A move is not necessarily an adjustment. All moves do not succeed in adjusting subluxations. A move may shift a vertebra from one place to another but that is not always an adjustment. A move does not succeed in adjusting unless it produces an Innate recoil. The educated mind of a surgeon or even of a chiropractor does not know where to put that subluxated vertebra. The only intellect that knows is the Innate Intelligence of the patient. A "move" may move it too far, or not far enough or into a wrong position; one, perhaps, that would be worse than the original malposition.

Art. 6. ADJUSTMENTS.

A Chiropractic adjustment is the RESTORATION of a subluxated vertebra to its normal position, by Innate Intelligence.

This restoration is brought about by Innate recoil or Innate contraction of forces. The contraction of forces takes place in the supporting tissues of the vertebra in question. It is a kind of beneficial jiu-jitsu. The Palmer method of arousing Innate to do this; of performing the beneficial jiu-jitsu is by means of the Palmer Toggle Recoil.

The student is urged to be sure to learn this point. The common mistake is carelessly to suppose that Palmer technic is like all others in general. That is as far from the truth as black is from white. The Palmer method is strictly unique; no other method teaches that adjusting is restoration performed by Innate Intelligence.

Art. 7. INNATE INTELLIGENCE IS THE ADJUSTOR.

Innate Intelligence always strives to replace a misplaced vertebra. If it is a subluxated vertebra, it is so because Innate's replacing forces are cut off from the region of the misplaced vertebra. This subluxation, which is interfering with the transmission of mental impulses to some organ, remains in that position because it also is interfering with the transmission of impulses to its supporting tissue. Sometimes this is to such an extent as to make the vertebra, or the tissues holding it in situ, pathological.

Innate can replace a vertebra if the adjustor produces a

jerk or concussion in those tissues. This jerk is called the recoil. Recoils are brought about by concussions; concussions may be accidental or scientific—Dr. Palmer prefers the latter. Concussions may be the result of mechanical forces, or intangible physical forces, chemical forces or mental shocks. Both subluxations and adjustments are produced by recoil to concussions. Unbalanced resistance subluxates; balanced resistance adjusts. A spontaneous adjustment is one accomplished by Innate without the intervention of outside forces. Accidental adjustments are brought about by accidental recoils, which happen to be just right. The adjustor should try to produce recoils scientifically, so they will not "just happen," but so he can bring that "phenomenon" about whenever he wants to.

Art. 8. CHRONIC SUBLUXATIONS.

A chronic subluxation is one of rather long standing; at least one that has definitely come to stay unless something is done about it. This is because of the interference with transmission to the tissues of and near the vertebra so that they have become abnormal. Even when an adjustment is given, this vertebra will not "stay hitched" because the hitching tissues are too abnormal to perform their function. Therefore time must be given to build up the tissues of the vertemere to the point where they will hold, before lasting adjustments can be given.

The abnormality of the vertemere may be to such an extent that the ligaments are stretched or hardened; the intervertebral disc distorted; prolapsed or contracted muscles, etc. It is obvious that Innate cannot use these for placement; besides that, they offer friction to a change of position, even back to normal. Therefore a large part of the adjustor's force is used in overcoming this friction. It is evident that the adjustor must use as much skill as possible (educationally) to make his drive as nearly in the right direction as possible, and with the right amount of force. Then part of the adjustor's forces is appropriated by Innate Intelligence and part is used to overcome the friction of cleavage.

Sometimes the pathology is so great that the disc or the vertebra is destroyed or ankylosed very heavily. In that case the chiropractor cannot adjust. However, ankyloses can be broken by giving scientific concussion of moderate force daily on the ankylosed subluxated vertebra. If Innate wants it moved she will weaken the ankylosis until it becomes very "chalky" and weak, and finally gives way with very, very moderate force. By all means avoid giving a hard adjustment to break an ankylosis. (See Vol. XV.)

Art. 9. CLEVAGE.

Cleavage is the movement of one body between two others—splitting action. The friction is greater with slow motion than with fast, which is of course according to the law of friction. The application of the principle of cleavage, in Chiropractic, is the movement of a vertebra between two other vertebrae. This, as we have seen in a previous article, may have considerable friction on account of pathology.

Art. 10. CONCUSSION.

Concussion is a blow as the result of arrested momentum. Momentum is the result of weight (mass) in motion and also of speed. In an adjustic concussion, it depends more upon speed than mass. At any rate it is necessary to get concussion, but without pounding upon the back. There should be a clean transfer through to the vertebra.

Art. 11. SPEED.

Speed is the velocity of a moving body. The more speed a body has the more momentum it possesses. The more momentum it has, as the result of this speed, the more clean cut concussion it can produce. It is used in Chiropractic to obtain easy cleavage and to arouse Innate recoil.

Art. 12. RECOIL.

Recoil is the term used for Innate contraction of forces, in the body, in response to the adjustic concussion. Mechanically, recoil is the product of elasticity. It is the bouncing or springing back of an object when it strikes another object. It is not possible without concussion. Very little of this mechanical recoil or bouncing takes place in giving an adjustment, however. There is a flying back of the hands and arms but that is mostly due to the "come back" of the patient's back.

Art. 13. FOLLOW THROUGH.

Follow through is not used except with contacts beneath much soft tissue; as, a transverse contact. It kills recoil if there is too much of it. The concussion is more like the blow of a hammer on a nail or the pile driver on a post—as the hammer travels back the post goes down. Hammer and post simultaneously travel in opposite directions. If the hammer should follow through, a very poor drive is made. If driving a nail with a hammer a follow through would bend the nail.

Art. 14. THE TOGGLE.

The toggle is a mechanical principle wherein two levers are hinged at an elbow giving mechanical advantage.

As the elbow straightens the advantage increases; the more the elbow is bent the less the advantage. As the

elbow is straightened pressure is exerted at the free ends of the levers. If one of the free ends is made stationary, the other lever does all the longitudinal moving. This powerful principle is used in many kinds of machinery; as, brakes, iron shears, presses and the like. In machinery it generally is used with a slow motion but when used for adjusting it is used with the utmost speed.

Combinations of toggles may be made so as to multiply the mechanical advantage or otherwise strengthen it.

Art. 15. THE PALMER TOGGLE.

The Palmer toggle is double, consisting of two toggles (or four levers) working simultaneously and combining their forces at one point—the “nail point.”

The parts of the Palmer Toggle are: two shoulders, two arms, two elbows, two hands, hammer head, nail head, nail point and episternal notch. The Palmer toggle machine is assembled by arching both hands; placing hammer head on nail head, grasping the wrist, bending the elbows slightly. This forms a double toggle. The body and legs of the adjustor constitute the chassis for this concussion machine. The upper ends of the toggles being held stationary by the shoulders and body; the entire movement is the nail point downward and away from the shoulders.

Art. 16. HOW THE TOGGLE IS USED IN ADJUSTING.

The toggle should be used with speed enough to produce a concussion; the utmost speed is not too much. Speed is necessary to make a concussion; concussion is necessary to lessen the friction of cleavage and absolutely necessary to make Innate recoil. In order to obtain concussion without raising the nail point from contact, the muscular slack of the relaxed arms is made use of. In using the toggles, made by the arms, the elbows are brought toward each other until they come straight, or practically so. It will be impossible, at any rate unnecessary, to make the two elbows touch. The poised weight of the body is thrown forward in such a manner that the upper ends of the toggles (the shoulders) do not fly back, so as to make all the motion in the lower ends of the toggles—the nail point. When necessary, in giving hard adjustments or when a very light person lacks sufficient weight to hold the toggles steady, the Body Drop may be used. (see Body Drop in Drills) When the toggles are used with a slight twisting movement, as on three direction subluxations, it is called the Torque. (See Torque, in Drills.) The toggle should be fully extended at the end of the adjustic stroke. If the toggle has not completed its extension at the conclusion of the thrust, it results in pushing. Pushing does not entice Innate to recoil. The adjustic move should produce a concussion, like the pile driver, and not follow through. In some cases, however, as

when the contact is through much soft tissue, some follow through may be used, but care should be taken not to let it diminish speed.

Art. 17. THE PALMER TOGGLE RECOIL.

This is the name of the Palmer Move. It is so named because it makes use of the toggle principle, used with such speed, that it brings about a recoil in the body of the patient.

Art. 18. POSTURES.

A correct posture for both patient and adjustor is of great importance. The relative importance of the patient's posture and the adjustor's posture is 75 per cent and 25 per cent, respectively. The adjustor's postures are many and varied and are best described in Drills. The patient's postures are described next.

Art. 19. POSTURE OF THE PATIENT.

The Old Posture is with the patient placed upon two benches with the dorsal and lumbar regions bridging over a gap between the two benches. The superior end of the rear bench comes across the thighs a few inches just below the hip joints. The inferior end of the front bench comes across the chest on a line between the axillae. This gives two fixed points for dorsal or lumbar adjustments with the body swinging freely so that Innate will have room to recoil in. As the adjustor must have slack in the muscles of the arms to produce concussion with, so the patient must have both slack and space to recoil in. The face is turned to one side or the other according to laterality or rotation or the contact used. (see Drills) The main point, however, is to have the two fixed points for the cervical region also; that is, the chest and the head with the cervical region bridged between for room to recoil. Excessively padded head pieces prevent this. Relaxation on the bench is necessary.

THE PALMER POSTURE OR KNEE POSTURE

This is a later and better development in posture. Like other things Chiropractic, it tends toward the natural.

In giving an adjustment, it is necessary to have the patient in the best possible relaxed posture. We all know that flexed thighs give this condition.

To take the knee posture, the patient kneels upon a pad and bending forward, places the head and shoulders upon a bench exactly the same as in the old posture, then the thighs are perpendicular approximately and serve to give the lower end of the spine a fixed support. This with the forward bench gives the spine necessary "bridge."

For adjusting in the cervical region the knees are brought well forward so that the thighs are not perpendicular. Do

not allow the patient to sit on his heels. The weight of the body should be so well forward of the knees that the weight of the head and chest is thrown on the bench.

For upper dorsal, approximately the same placement of the knees is used, (as for cervical) but in the lower half of the dorsal region, the thighs should be perpendicular.

For lumbar region and sacrum, the knees should be placed well back with the thighs sloping back but not to the extent that there will be danger of slipping. The knees, especially for lumbar region adjusting, should be placed a little apart for balance. This prevents swaying from side to side. The exact position of the knees for a given vertebra will vary with different patients; but the correct placement of the knees can be ascertained by placing the palpating hand on the back at the location of the subluxated vertebra and then move the patient's knees forward or backward until the back muscles are relaxed at that place.

The Knee Posture is not so good for sacrum and ilium for these structures are too close to the "fixed point" of the bridge.

The posture of the adjustor also is important. The main thing for the adjustor, is to get himself into such a position that he feels he can give the adjustment in the correct direction, according to his visualization and to feel able to give it with speed. He must be able to do this by the use of thinking and not be hampered by any conventional modes of standing. However for purposes of instruction and as a basis for drills the conventional ways of standing are given in this book. (see Drills.)

The Toggle Parts

Art. 20. LINE OF DRIVE, AND THE PLANE OF DRIVE.

The Plane of Drive is the plane in which should lie, the two shoulders, two elbows, episternal notch, hammer head, nail head, nail point and the point of contact.

The line of drive is a line from the episternal notch to the point of contact on the vertebra and its direction is determined by the direction the vertebra is to be driven. It should coincide with or lie in the plane of drive and in that plane the episternal notch, hammer head, nail head, and nail point should all be in the same line—which is the line of drive.

One should always take care to keep the elbows in the plane of drive, else the thrust will not be the line of drive but an entirely different one. A common error is to keep the elbows too close to one's sides and exaggerating laterality in adjusting; or in adjusting from the side opposite to fail to lean over far enough and then try to "hook" the vertebra toward himself. It is obvious that this is wrong in every detail.

Art. 21. THE SHOULDERS.

The shoulder is the upper end of the upper toggle stick or lever. The line between the two shoulders is the cross-bar of the two toggles, connecting them into one mechanism. The shoulders should be in the plane of drive.

Art. 22. THE ELBOWS.

The elbows of the adjustor are the elbows of the toggles. They are the hinges. In giving an adjustment these elbows are brought toward each other so as to straighten each toggle—straighten each set of levers. It is not necessary to try to make these elbows touch—just bring each toggle straight.

Art. 23. HAMMER HAND.

Hammer Hand is the name of the hand which grasps the wrist of the nail hand. The distal surface of the pisiform bone is placed on nail head. Its purpose is to impart the action of the hammer side of the toggle to the Nail. The hammer hand should never be raised from its seat, in giving the adjustment. Keeping it in its seat is difficult if the wrist is grasped incorrectly as well as making it difficult to extend the toggles as far as they should go. In placing Hammer Hand be sure to have Hammer Head correctly seated. Then the fingers may be placed about the wrist at right angles to the wrist. In this the thumb is flexed much less than the fingers. The thumb and middle finger tend to meet around the wrist.

A few experiments along this line will assist in your particular case. Grasp the wrist and extend the arms. If they bind or the Hammer Head lifts, continue holding the arms extended and shift the grasp so as to feel more comfortable, at the same time complying with the requirements. Some people have very long metacarpal bones and small wrists. For these people it is impossible to set the distal surface of the pisiform bone on nail head. For these people, it is best to put, what at other times, would be nail point two, on the nail head, and then there will be no difficulty in grasping the wrist correctly. Either hand may be Hammer Hand according to how the toggle is used.

Art. 24. HAMMER HEAD.

Hammer Head is the distal surface of the pisiform bone of the Hammer Hand. It is the same as Nail Point One of the Nail Hand. Hammer Head is securely seated on Nail Head and kept there throughout the adjustment by securing the hand in place by grasping the wrist. For people with long metacarpal bones and comparatively small wrists, Nail Point Two may be used for Hammer Head.

Art. 25. NAIL HEAD.

Nail Head is a slight depression at the base of the thumb

on the edge of the wrist. This Nail Head should be kept elevated above Nail Point so as to be in the line of drive. The way to do this is to use a proper arch with the thumb held up to aid in keeping Hammer Head on Nail Head.

Art. 26. NAIL POINT ONE.

Nail Point One is the hand contact used on spinous processes, transverse processes, laminae, sacrum, ilium, etc. It is the distal surface of the pisiform bone.

The pisiform bone is an acorn-shaped bone in the proximal row of carpal bones. It articulates (on the base of the acorn) with the cuneiform bone so that its apex is toward the anterior or toward the palm. The distal surface (side of acorn) then, is toward the fingers and is overshadowed by the spine of the unciform bone in the distal row of carpals. That is to say, the distal surface is not available as Nail Point as long as the hand is straight. In arching the hand, however, the unciform bone is swung backwards out of the way. The stretching of the tendons and ligaments of the flexed wrist securely anchors the pisiform bone so that it is well able to withstand the concussion of adjusting.

In placing Nail Point One in position, the apex (point of acorn) is placed upon the finger nail of the pointer finger so that the distal surface is over the tip of the finger. The pointer finger being withdrawn, Nail Point One settles down on the spot of contact.

Art. 27. NAIL POINT TWO.

Nail Point Two is the lateral anterior aspect of the middle of the fifth metacarpal bone. It is used for adjusting cervicals on the spinous process and sometimes on other contacts. It is well padded with the muscles on the edge of the palm, much of which has to be rolled out of the way in placement. This is done by rolling the edge of the palm on the dorsal surface of the pointer finger and allowing the nail point to settle upon the point of contact at the end of the pointer finger. Care should be taken not to cover the spot of contact with the pointer finger, else the proper placing of Nail Point Two cannot be done.

Art. 28. THE EPISTERNAL NOTCH

The Episternal Notch is the rear sight of the Palmer Toggle. It is used to line up the toggle in the line of drive and the line from it is the guide line in which to make the Nail Point travel. Anatomically, the episternal notch is the depression in the manubrium of the sternum just between the two ends of the clavicles. In taking any standing position or flexed posture of the body, in order to "get at" the subluxation, keep in mind the episternal notch and carry it to the correct position.

Listing and Contacts

Art. 29. LISTING.

Listing is the description of the direction in which a vertebra has moved from its normal position. The direction opposite, that is, the direction of movement necessary to restore the vertebra to normal, is the Line of Drive. Listings are represented by the initial letters of directions used in anatomy.

As a body stands with the arms at the sides and palms toward the front; toward the back is Posterior; toward the front is Anterior; toward the feet is Inferior; toward the head is Superior; toward the sides, right or left, is Lateral. These directions hold constant even if the position of the body or any of its parts is changed. Thus, the palms of the hands are anterior no matter in what position the hands are placed; and toward the head is superior even if the person is lying down.

It is obvious that descriptive words of direction could be given only in reference to the body and not relative to anything outside of the body.

Some other terms of direction are: Proximal—toward the sagital plane of the body; Distal—away from the sagital plane of the body; Internal—facing the sagital plane; External—facing away from it.

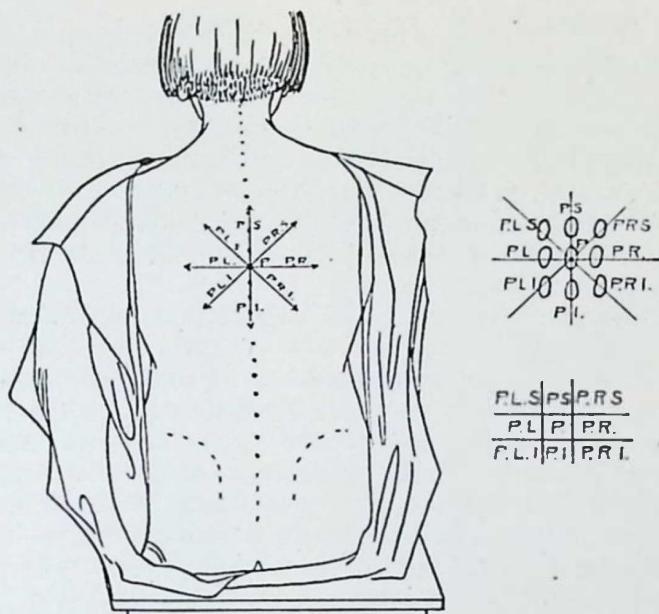
The initial letters of these directions are used for the listings; as P. R. S., meaning Posterior, Right and Superior. In listing Posterior Subluxations, the tip end of the spinous process is listed as to direction. This is shown by the cardinal chart of listings. The center represents the normal position of the tip end of the spinous process. The lines crossing this center show the conventional directions of listing.

Art. 30. POSTERIOR SUBLUXATIONS.

This is a name (chosen for convenience) used to indicate a class of subluxations in which the principal direction of misplacement is toward the posterior. With this direction there may be superiority, inferiority, or laterality, or combinations of these. Of course the principal direction of drive is toward the anterior, the other directions being very slight, usually. On account of the shape of the articulations, it is impossible, in most cases, for a spinous process to have laterality without being forced to the posterior.

When a Posterior Subluxation has laterality the amount of rotation is very slight and the axis of rotation is vertical and through the centrum, unless it is a combination of Posterior and Rotated Subluxations, which are quite common.

The reason that a vertebra will stay in such a position is because the muscles and tissues holding it in situ are abnormal, caused by this self same subluxation.



In adjusting, these tissues are the location of the recoil with which Innate does the adjusting. The adjustor merely supplies "the jerk" to bring this about. When these tissues are somewhat pathological, however, the adjustor must also supply the mechanical cleavage forces.

Posterior Subluxations are best corrected by adjusting on the spinous process contact.

Art. 31. THE SPINOUS PROCESS CONTACT.

It is a small area on the end of the spinous process, chosen as suitable for placing the nail point according to the line of drive.

In the Cervical region the contact is a small area on one or both prongs according to the line of drive.

Art. 32. THE LINE OF DRIVE ON POSTERIOR SUBLUXATIONS.

The line of drive is always opposite to the directions described by the listings. In the dorsal region this is mostly downward toward the floor which is anterior to the body of the prone patient. In adjusting cervicals, however, one must remember that the directions are changed when the patient turns his face to the right or left. That is, the direction that is anterior to the body is not anterior to the head and upper part of the neck but lateral. To "get posteriority" one must incline his line of drive more to the horizontal, thus driving more toward the anterior of the neck and not anterior to the body. Therefore one should visualize the vertebra and lean to right or left, as the case may be, to give sufficient slope to the line of drive to get the proper amount of "posteriority."

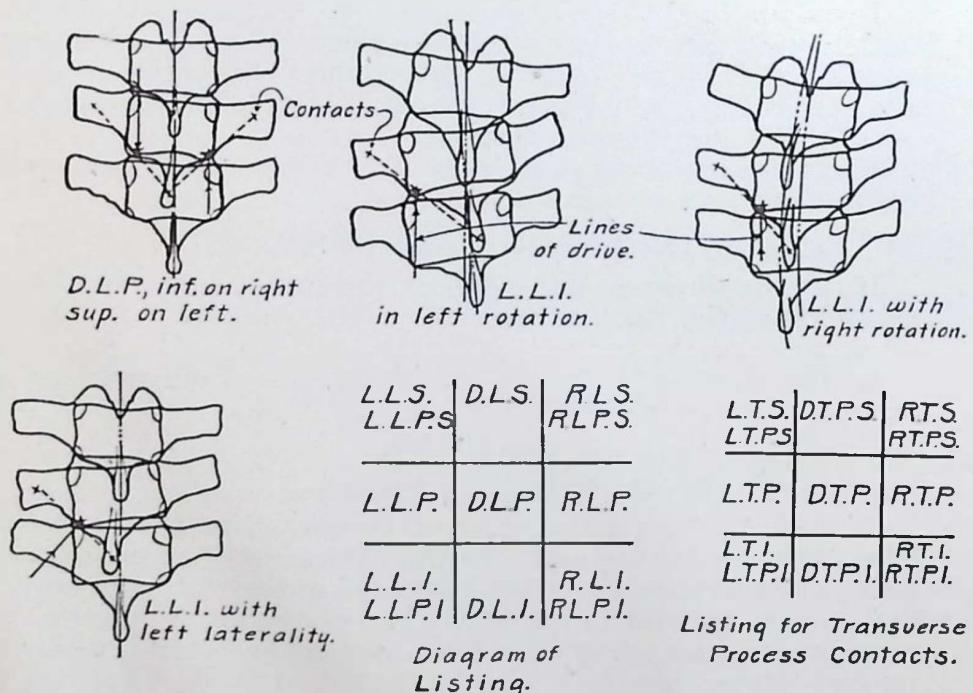
Art. 33. ROTATION SUBLUXATIONS.

This is a name adopted for convenience and used to indicate a class of subluxations in which the centrum of a vertebra has moved laterally, relative to the one above or the one below or both, being rotated around a vertical axis somewhere posterior to the centrum. Often, this is compounded with posteriority and other positions. If compounded with posteriority there may be laterality of the spinous process.

The axis of rotation is commonly in the neighborhood of the zygapophyses but may be more to the posterior somewhere in the spinous process. If near the end of the spinous process there will be no laterality of the spinous process tip.

A vertebra cannot rotate very far—not much more than a quarter of an inch—without taking its neighbors with it. It is quite common for them to do this, however, and three or more vertebrae will be in a Rotatory Scoliosis.

The best contact for a rotated vertebra is the Transverse Process Contact.



Art. 34. THE TRANSVERSE PROCESS CONTACT.

It is a small area on the posterior lateral aspect of the transverse process on the side of rotation. That is to say, on the transverse process that is most posterior. It is used most effectively from second dorsal to tenth dorsal inclusive. It can be used on the first dorsal but not so effectively on account of the amount of muscle over it. It is not used on

the eleventh and twelfth dorsals on account of the rudimentary character of their transverse processes; or in the lumbar region on account of the transverse processes there being too long and thin and buried beneath heavy muscle. Transverse contacts are harder to use than spinous process contacts and require more judgment on the part of the adjustor. Careful measurements must be made so as not to get on adjacent structures. This contact is below considerable tissue which tends to slow up the adjustic force and absorbs the concussion. If the student will give the matter a little thought he will see that it would be difficult if not impossible for a person to move an object (as the point of contact) to definite place through two inches of muscle, even if he knew where that place was. A simple experiment will serve to show. Mark a small circle on a board or table and place a bean near it. Then place over the bean a beefsteak an inch (or more) thick. Place Nail Point One over the bean as well as you can calculate and drive the bean accurately into its little circle, through the steak. It is quite obvious that some other agency is at work when one "gives" an adjustment. Do not forget that Innate Intelligence is on the job in the living body and knows where that vertebra belongs.

Art. 35. LISTING ROTATIONS.

A rotated vertebra is listed by describing the position of its centrum relative to the one above or the one below or both; or by describing the position of the transverse process on the rotated side. These listings are shown in the accompanying diagrams.

There is no conventional listing adequate to describe the position of all rotations in all bodies—each one is a problem in itself. Therefore the adjustor must visualize and study each one to be adjusted.

Art. 36. LINE OF DRIVE FOR ROTATIONS.

Ordinarily the drive is downward allowing for the slope of the back at that place; that is, the drive is to the anterior. Altering the line of drive more toward the sagital plane will tend to move the centrum without moving the spinous process laterally. Driving away from the sagital plane tends to move the spinous process more. A little thought will show that one could not place his hand on the back of the patient and drive downward (toward anterior) without driving the vertebra, with any kind of contact, toward the anterior. This could not be avoided, and therefore is utilized. How well it is utilized depends upon the thinking ability and visualizing ability of the adjustor. Inferiority or superiority may be given in the line of drive to tend to correct superiority or inferiority, respectively. It is the writer's opinion that not much surgical accuracy could be

obtained in this way and if a superior or inferior movement is obtained, Innate will have to do it. One could not do much in "bumping" a transverse process to the inferior or superior through two or more inches of soft tissue.

Art. 37. MEASUREMENT FOR TRANSVERSE CONTACTS.

For middle dorsal region; 3rd to 8th dorsals, inclusive: From the second interspinous space above the spinous process in question, measure $1\frac{1}{8}$ inch.

For upper dorsal region; 1st to 3rd dorsal, inclusive: From the middle of the spinous process above the one in question, measure $1\frac{1}{4}$ inch.

For lower dorsal region, 8th to 10th dorsal, inclusive: From the interspinous space above the spinous process in question, measure 1 inch.

It must be remembered that these measurements are approximate and conservative. They apply to the average sized person. They are to be altered with judgment on every patient, depending upon the slope of the spinous process varying in different persons; in the varying sizes of people. It is obvious that the above measurements could not be used on children. The student should see to it that he can accurately gauge an inch; an inch and a quarter; an inch and one-eighth, etc. He should see to it that he has found the correct level of the transverse process superior to the spinous process. It is better to be conservative of your measurements laterally lest you get contact upon the rib instead of the vertebra.

The transverse process gives a long lever laterally and enables one to move a vertebra easily, and for that reason one should be accurate and careful; he should work to adjust the vertebra and not seek merely a pleasing "pop." The popping or cracking sound given by the synovial membranes means nothing; it is no measurement of adjustic worth. Driving a rib to the anterior gives the most pleasing pop of all but that does not adjust the vertebra. The student should not allow his esthetic pleasure in these sounds to lead him from the path of duty.

Art. 38. TILTED SUBLUXATIONS.

This is a term used to indicate that a vertebra has been elevated to the superior or depressed to the inferior on one side, relative to the vertebra above or the one below, or both, for it has rotated about a horizontal axis. The numbers of these are legion and one must depend upon the spino-graph and visualization to calculate the line of drive.

The best contact for tilted vertebrae is the Lamina Contact, or the Torque on the spinous process.

Art. 39. THE LAMINA CONTACT.

It is a small area on the posterior surface of the lamina of the subluxated vertebra midway between the spinous pro-

cess contact and the transverse process contact, in dorsals and on corresponding positions on other vertebrae. It is used in cervicals, dorsals, and lumbar. It can't be used for simple rotations but is best for tilted vertebrae or for tilts combined with rotations.

Like the transverse contact, the lamina contact is beneath much muscle. The same remarks used in explanation of this in transverse contacts will also apply to lamina contacts.

Art. 40. MEASUREMENT FOR LAMINA CONTACTS.

For middle dorsal region; 3rd to 8th dorsal inclusive: From the second interspinous space above the spinous process in question, measure $1\frac{1}{8}$ inch. Bisect the distance between this point and the tip of the spinous process. The bisecting point is the spot of contact.

Or one may use the measurements given in NCM Manual.

For upper dorsal region; 1st to 3rd dorsal, inclusive: From the middle of the spinous process above the one in question, measure $1\frac{1}{4}$ inch. Bisect the distance between the point found and the tip of the spinous process. The bisecting point is the point of contact.

For lower dorsal region; 8th to 10th dorsal inclusive: From the interspinous space above the spinous process of the vertebra in question, measure 1 inch. Bisect the distance between the point found and the tip of the spinous process. The bisecting point is the point of contact.

For 11th and 12th dorsal: From the interspinous space above the spinous process in question, measure on the side to be adjusted a distance far enough to have the nail point clear of the spinous processes and yet as near them as possible.

For the Lumbar Region: From the spinous process in question measure a distance to the side to be adjusted, a distance sufficient to have the nail point clear of the spinous process and yet as near it as possible.

For the Cervical Region: From the superior border of the spinous process of the vertebra in question, measure to the side to be adjusted, a distance sufficient to clear the prongs of the spinous process and yet as near as possible without striking it.

For Atlas, lamina contacts are used. See Atlas subluxations.

With the exception of the Atlas, Nail Point One is always used on all lamina contacts.

The cautionary remarks about transverse process contacts also apply to measurements for lamina contacts.

Art. 41. LISTING TILTS.

A tilted vertebra is listed by describing the position of its centrum relative to the vertebra above or the one below,

or both or by describing the position of the lamina on the side to be corrected.

Art. 42. LINES OF DRIVE FOR TILTED VERTEBRAE WITH LAMINA CONTACTS.

Ordinarily the drive is downward, allowing for the slope of the back at that place; that is, the drive is to the anterior. Altering the line of drive more to the sagital plane will tend to move the centrum without moving the spinous process, if one does not strike the spinous process. Driving away from the sagital plane tends to correct laterality of the spinous process. Sometimes it is necessary to drive against the spinous process to correct laterality when there is a tilt on the side of laterality. The line of drive is inclined to the superior or to the inferior to take care of tilts. In doing this visualize the vertebra and keep in mind the amount of tissue one is working through.

Art. 43. THE TORQUE.

The Torque is a method of using the toggle with a twist as the toggle straightens. This causes the nail point to travel in a somewhat spiral path—or the section of a spiral.

It is used on three-letter Posterior Subluxations and on some Tilted Subluxations. It is very efficient on atlas subluxations, especially when they have anterioty. It is most excellent for Tilts.

In drills the movement is explained by describing the direction the nail hand elbow takes. In giving the Torque the elbows swing around in a small arc. Nevertheless, in giving the Torque one should not think of the elbows but keep the mind on the nail point and the point of contact, just as in playing golf you keep your eye and mind on the ball. Think of where you intend to make the point of contact go; to make it travel in the section of a spiral and of making your nail point pursue it in that spiral path. This necessarily is a "follow through". But do not let the follow through diminish the speed any more than can be helped. In the dorsal and lumbar regions, first drive the point of contact toward the median line and then to inferior or superior as the case may be; but at the same time anterioty is maintained through both these directions.

Art. 44. ATLAS SUBLUXATIONS.

The Atlas, the first vertebra of the spine is also the most peculiar. On account of its peculiarities and its articulations being different from the others, its subluxations are different. This being true it requires special listing and special contacts. It has twenty different subluxations that are possible, for which there are methods of listing.

The atlas is listed by describing the position of the tip end of the transverse process relative to the angle of

the jaw and the mastoid process. If the subluxation has laterality, and usually that is the case, the position of the transverse process on the side of laterality is listed. The side of laterality is the side toward which the atlas has moved. When it has no laterality, and is listed anterior or posterior, the description refers to the whole atlas in general or refers to the position of both transverse process tips.

Art. 45. CONTACTS ON ATLAS.

The contacts for adjusting the Atlas are on the "laminae." The laminae of the Atlas or rather the structures corresponding to laminae, are the lateral, posterior portions of the posterior arch. These are not laminae at all, being round instead of plate-like. The contact spots are on the side of laterality of the subluxation.

Art. 46. MEASUREMENTS FOR ATLAS CONTACTS.

Turn face toward the side of laterality. Palpate with both hands, with the hand corresponding to laterality, palpate the transverse process of the Atlas. With the hand opposite to laterality, find the bifurcation of the spinous process of the Axis. Hold this point with the middle finger and with the forefinger—measure:

For Atlas R. L., R. P., or L. P., bisect the distance between the spinous process cleft of the axis and the transverse process of the Atlas. This is the point of contact, but it is best to be sure that it is a contact by palpating with the fore-finger resting there. This also applies to the other Atlas contacts.

For Atlas R. S., L. S., R. P. S., or L. P. S., bisect the distance between the spinous process of the Axis and the transverse process of the Atlas, and then, from the point of bisection, measure to the superior a quarter of an inch. This last point found is the spot of contact. Palpate, if possible, to check upon your finding.

For Atlas R. I., L. I., R. P. I., or L. P. I., bisect the distance between the spinous process of the axis and the transverse process of the atlas, and then, from the point of bisection measure to the inferior a quarter of an inch. This is the point of contact. Use the forefinger to point out the spot of contact so that the nail point can be placed.

For Atlas R. A. or L. A. measure two-thirds of the distance between the spinous process of the axis and the transverse process of the atlas.

For Atlas R. A. S. or L. A. S., measure two-thirds of the distance from the spinous process of the axis to the transverse process of the atlas, and from the point found, measure a quarter of an inch to the superior. The last point found is the spot of contact.

For Atlas R. A. I. or L. A. I., measure two-thirds of the distance from the spinous process of the axis to the trans-

verse process of the atlas, and from the point found measure a quarter of an inch to the inferior. The point found is the spot of contact.

For Atlas Anterior; it may first be adjusted as R. A. and immediately as L. A., but a better way is to adjust Axis as P.S. for it is in that condition with Anterior Atlas.

For Atlas Posterior; it may first be adjusted as R. P. and immediately as L. P. but a better way is to adjust Axis as P. I., for it is in that condition with Posterior Atlas.

For lines of drive, see Drills.

Art. 47. SACRAL SUBLUXATIONS.

Sacral subluxations are displacements of the sacrum relative to the ilii and the 5th lumbar vertebra. They may be the Posterior kind or the Rotated kind.

Art. 48. LISTING SACRAL SUBLUXATIONS.

Sac. B. P. R. or Sac. P. R. = sacrum base posterior on the right.

Sac. B. P. L. or Sac. P. L. = sacrum base posterior on the left.

Sac. B. P. = sacrum base posterior.

Sac. A. P. = sacrum apex posterior = sacrum base anterior.

Sac. B. A. = sacrum base anterior = sacrum apex posterior.

Art. 49. SACRUM BASE POSTERIOR.

When the sacrum base is posterior the sacrum has rotated about a horizontal, transverse axis, (at about the third segment usually) so that the base is too far posterior and the apex too far anterior.

By observation and palpation it is perceived that, when the sacrum base is posterior the second tubercle is not in line with the posterior superior spines of the ilii, it being too far to the posterior. When normal, the second tubercle should be in line with these spines in both vertical and horizontal planes, and equidistant from them. The first tubercle should be about $\frac{1}{4}$ inch (or more) anterior to the line across the crests of the ilii, and slightly anterior to the spinous process of the 5th lumbar, making a slight "jump off." These are good points to check up with.

Art. 50. CONTACTS FOR POSTERIOR SACRUM BASE.

The contact is on the first or second tubercle with Nail Point One. Use a rather low arch yet be sure to have the hand arched. The fifth metacarpal bone should be cross-ways to the spine or nearly so. The line of drive is to the anterior. Avoid "snow-shoe" contacts.

Art. 51. SACRUM BASE ANTERIOR.

When the sacrum base is anterior the sacrum has rotated about a horizontal, transverse axis, so that the base is too far anterior and the apex too far posterior. This is sometimes listed as sacrum base posterior.

By observation and palpation it is perceived that when the sacrum base is anterior, the sacrum apex is posterior. The first tubercle is much too far anterior to a transverse line across the crests of the ilii and entirely too much "jump off" from the 5th lumbar down to it. There will be a depression, visible or palpable, extending from crest to crest of the ilii. The second tubercle is not in line with the posterior superior spines of the ilii, being too far anterior.

Art. 52. CONTACTS FOR ANTERIOR SACRUM BASE.

When the sacrum base is anterior it is adjusted by getting the contact on the sacrum apex on the 4th tubercle with Nail Point One. Use a low arch to avoid slipping. If the 4th tubercle is not present, as when the sacral hiatus is long, use Nail Point Two with the 5th metacarpal bone at right angles to the spine, bridging across the hiatus. The line of drive is to the anterior.

Art. 53. ROTATED SACRUM.

When a sacrum is rotated it has turned about a vertical axis so that its superior articulation with the 5th lumbar is not normal and its auricular articulations are not in proper juxtaposition with the ilii.

By observation and palpation it is perceived that the tubercles are not in the median line with the spinous processes of the lumbar vertebra; that on one side of the tubercles, the fossa palpates deeper than upon the other side; that the distance from the second tubercle to the posterior superior spines of the ilii are unequal. These are the points with which to check up. That side of the sacrum which is more posterior is said to be the side of rotation.

Art. 54. CONTACTS FOR ROTATED SACRUM.

The contact for rotated sacrum is midway between the 1st or 2nd tubercle and the crest of the ilium. Use Nail Point One, with the 5th metacarpal bone lying in the sacral fossa and exactly parallel to the spine. Sometimes a rotated sacrum is best adjusted with the contact near the apex. In that case the rotation is more apparent near the apex. Such a subluxation is adjusted by getting the contact about $1\frac{1}{4}$ inch from the 4th tubercle on the side of rotation. The drive is to the anterior for rotated sacrum.

Art. 55. MEASUREMENTS FOR ROTATED SACRUM CONTACT.

Keep the middle finger on the 1st or 2nd tubercle and with the forefinger palpate to the crest of the ilium on the side of rotation. Bisect this distance and the point of bisection is the point of contact. Since the adjustor must change pointer fingers it is done better by bisecting with the finger of the hand which makes the change. (see Drills.)

Art. 56. ILIUM SUBLUXATIONS.

A subluxated ilium is misplaced, relative to the other innominate bone, and its auricular articulation is out of proper juxtaposition with that of the sacrum.

By observation and palpation it is perceived that the crest of the ilium is more posterior than the other ilium crest. Its posterior superior spine is not in line with the one on the other ilium and the 2nd tubercle of the sacrum; also it is nearer the 2nd tubercle than the other posterior spine and more posterior. The fossa between the subluxated ilium and the tubercles of the sacrum is narrower and deeper than the other fossa. This is because of the slanted plane of the auricular articulation.

Art. 57. LISTING.

It is listed: Rt. Il. P.; Lft. Il. P.

Art. 58. CONTACTS.

The best contact is upon the broad lip of the ilium crest about an inch to the superior from the posterior superior spine of the ilium, where edge of the crest faces the posterior. Use Nail Point One, with a low arch. Line of drive is to the anterior and from the median line.

Art. 59. MEASUREMENTS FOR CONTACT.

Palpate to 2nd tubercle of the sacrum. Keep middle finger on it and with the forefinger of the same hand palpate laterally to the posterior superior spine of the ilium in question, then measure to the superior one inch. It is best, then, to change pointer fingers, using the pointer finger of the other hand.

At any time, in changing pointer fingers for any subluxation, care should be taken not to lose the spot of contact in making the change.

Art. 60. ILIUM POSTERIOR SUPERIOR.

This is the same as the posterior subluxation but with the addition of superiority.

By observation and palpation, it is perceived that the crest of the subluxated ilium is more posterior and superior than the other ilium crest. Its posterior superior spine is not in line with the one on the other ilium and the second tubercle; it is out of line, both to the posterior and to the superior—in both the vertical and the horizontal planes. It is closer to the second tubercle than the other posterior superior spine. The fossa between the subluxated ilium and the tubercles of the sacrum is narrower and deeper than the other fossa. This is because of the slant of the auricular articulations.

A posterior superior ilium may be mistaken for a tilted pelvis or vice versa. The following points may be used to check. In tilted pelvis the lumbar region has a curvature;

the tubercles of the sacrum are in line with the spinous processes of the lumbar vertebrae, but the sacrum is not vertical, but tilted as viewed from the posterior. The ilii are in proper relation to the sacrum and to each other; the posterior spines and the second tubercle are in normal alignment.

Art. 61. LISTING.

It is listed Rt. Il. P. S.; Lft. Il. P. S.

Art. 62. CONTACTS.

The contact is just the same as for Il. P. except perhaps a little more to the superior. The measurements for contacts are the same.

Art. 63. LINE OF DRIVE.

The line of drive is to the anterior and away from the median line, and toward the inferior.

Art. 64. COCCYX SUBLUXATIONS.

The coccyx, consisting of four segments, can be subluxated as a whole, in relation to the sacrum, or some of its segments in relation to each other. It can have its apex to the anterior, hinging on its basic articulation with the sacrum. Sometimes a sacrum apex posterior is responsible for that, the taut ligaments holding the coccyx forward. Sometimes one or more segments of the coccyx are bent forward to the anterior, hinging on the segment above. Laterality is often combined with these positions. Sometimes the coccyx as a whole or in part is posterior. In most cases of this kind the sacrum is at fault, the base of the sacrum being posterior. It is taken care of by adjusting the base of the sacrum to the anterior. (see Drills.)

Besides adjusting the sacrum to move the coccyx (in subluxations where this can be done) another contact is under the tip (from anterior) obtained by pressing against the sphincter muscle of the anus, and tucking the integument with the tip of the adjusting finger under the tip end of the coccyx. By these methods, both palpation and adjustment are on the external, with external contacts. This is the straight Chiropractic way of adjusting the coccyx as given by B. J. Palmer. The coccyx is to be regarded as any other vertebra, to be palpated and adjusted with the recoil from the outside of the body as any other vertebra.

The method of adjusting the coccyx from the internal by entering the rectum with the finger to palpate and move the coccyx is a form of surgery. As such it cannot be a part of this book which contains only the straight Chiropractic methods, the Palmer way. For the same reason the Old Moves are not given in this book, though both old moves and internal coccygeal adjusting are done by some chiropractors.

Mechanics of the Spine and Abnormalities

Art. 65. MECHANICS OF THE SPINE.

The spine is designed to allow movements of its segments upon each other in many directions to perform their normal functions. It would be well for the student to study orthopedics closely so as to be able to visualize and to know the spine in all its positions. We will mention a few of the normal positions here.

The spine normally has sigmoid shape, to give grace, balance, strength and mobility to the spine. When a person bends the spinal column by leaning forward or laterally it is called flexing. When he straightens, after bending, it is called extension. When he bends backward, it is called hyperextension. The curving or the straightening of the spinal column, when it is done normally, has no other names than these. When one bends laterally, the centra of the vertebrae swing over (rotate) to the concave side of the spine. These are not called rotations, for that name is reserved for abnormalities and these positions and movements that we are talking about now are normal. When one turns his face to the right or left it turns (rotates) all the vertebrae from the atlas down to the twelfth dorsal; the atlas a great deal, and as you count downward each vertebra turns less and less, until we find that the twelfth dorsal turns scarcely at all. This has much to do with our lines of drive in adjusting. The adjustor should study the mechanics involved in this turning and calculate his line of drive accordingly.

Art. 66. CURVATURES.

Now, if any of these deviations from the regular erect position of the spinal column with its normal sigmoid bends, should become fixed, ("frozen" that way) or be in that position most of the time, that would be an abnormality. These abnormalities are called curvatures; not curves but curvatures. There are three kinds as classified according to direction. Kyphosis, with convexity toward the posterior; lordosis, with the convexity toward the anterior; scoliosis, with the convexity toward the side. There are combinations of these; as, kypho-scoliosis, lordo-scoliosis, etc. These curvatures may or may not have abnormality rotated vertebrae (Rotated Subluxations) in them but it is usually the case. But whether these rotations are real subluxations or not, they, as abnormalities, are called Rotations, implying the rotation of a whole group. Therefore curvatures can be combined with rotations; as, rotatory-scoliosis. These conditions are abnormalities. All abnormalities are the result of subluxations in the spinal column, therefore Spinal Abnormalities are effects resulting from interference with

transmission, as any other dis-ease. They may be causing dis-ease somewhere, but they themselves are dis-ease caused by a subluxation somewhere. Then this dis-ease, this curvature is right in its own home in the spine. Therefore we will find the cause of this abnormality, probably, right in the curvature itself. This cause is THE subluxation in that curvature causing that selfsame curvature. The other so-called rotations may not be subluxations at all; or they may be subluxations causing dis-ease somewhere very remote from this curvature. You should not adjust them unless they are interfering with the transmission of mental impulses. When you adjust THE subluxation, do not try to place mechanically, as one would perform a surgical operation, the subluxated vertebra or its neighbors back into the sagital plane of the body and in beautiful alignment and graceful curves according to a laboratory ideal, but be sure to find the one subluxation there, in that group, perhaps, that is pressing on the nerves that lead to the muscles and ligaments holding it (or failing to hold) and its neighbors in place. Then adjust that cause of spine dis-ease. Open up its foramina—do not think of the other foramina just now but get this vertebra into proper juxtaposition with the one above or the one below, or both. That is the rule which will determine the direction to adjust it. Even if you have to drive away from the sagital plane of the body, (do not let surgery mislead you) do it, if it is necessary, to remove pressures from nerves; restore transmission to the tissues of the neighborhood of the vertebra in question, so that Innate Intelligence can strengthen these muscles and ligaments. Then she, (Innate, not you) can pull those vertebrae into the sagital plane, place her own graceful sigmoid curves in the spine, not of laboratory conception.

Art. 67. ANKYLOSES.

Sometimes the spine gets cemented into postures that cannot be changed, by a bony growth or change of bone. This is called ankylosis. Many times the spine gets fixed into curvatures, but even if the spine is erect and cannot be changed, adaptatively, it is a curvature nevertheless, for normal things can be adaptatively changed. Ankyloses are made by an exostosis of bone, produced by subluxations in the spine itself, perhaps by the affected vertebra itself. Sometimes ankyloses are built by adaptation to an occupation.

Ankyloses are built of bony tissue. This bony building material for ankyloses is called exostosis. There are two kinds. Those built by Innate of perfectly good bone cells, for adaptation in helping muscles and ligaments support the spine; and those built of dis-eased bone cells, and which Innate does not wish in the body. Innate does not close up

foramina with the ankyloses She builds, for Innate would not play practical jokes on herself in that manner. The way to eradicate the kind of ankylosis that Innate built, is to get rid of the thing that made it necessary to give the spine that extra support. If it is the result of some dis-ease, adjust to get rid of the dis-ease. If it is occupational, change the occupation.

The other kind of ankylosis is made of exostosis that is not healthy bone cells but is a rearrangement of bone made plastic by pathology and dis-ease. This kind will close foramina. If one wants to do anything for this kind of ankylosis he must start early in the game before much tissue is destroyed and the ankylosis heavy, or the vertebra or its discs destroyed. If the trouble is of long standing so that these things have taken place, the chiropractor can do nothing for that case. He can do nothing unless the ankylosis is light, the vertebra and discs all present. Even then, he should not undertake to adjust such a vertebra, (or injured spine as result of trauma) without spinograph pictures.

Art. 68. BREAKING ANKYLOSIS.

If you decide to break an ankylosis; if it is light enough; if you know it impinges nerves, to justify you in wanting it moved; if you know all of the vertebrae and all their discs are intact; if you know the bone is not brittle or rotten; if there is no tuberculosis in the bone, then you are justified in breaking the ankylosis. **This admonition cannot be emphasized too much.**

Now supposing, after due exercise of good judgment, you decide to break an ankylosis. **Do not** break it with one GRAND CRASH. No, just peck at it with the ordinary amount of adjustic force, day after day, and finally, Innate will make the ankylosis chalky and brittle, and some day with just the ordinary tap it will give way. Do not stop adjusting then, even if it is sore and a little painful. Keep at it until Innate has "cleaned house" in that region, absorbed the bony wreckage and carried it away. Whenever a chiropractor wants some surgery done, he entices Innate Intelligence to do it. He cannot entice Innate unless his wishes are reasonable and he cannot **make** Innate do it.

Art. 69. TOE ADJUSTING.

Toe adjusting is not strictly Chiropractic since the cause is not in the spine; yet it is the science of removing the cause and if this is true, perhaps in the broader sense it is in Chiropractic after all. Toes which have the joints stiffened into an angle are the causes of corns and bunions. The adjustment is given by grasping the toe with the fingers of one hand and placing the Nail Point One of the other hand on the upstanding angle of the toe. Give a sharp jerk with

the hand grasping the toe and exactly simultaneously, and swiftly, give a recoil concussion with the nail hand. The toe usually snaps out straight. It may take several adjustments to get permanent results.

Form Drills

Art. 70. THE SEVEN POINT DRILL.

The Seven Point Drill consists of the seven principal processes that one does in giving the Palmer Toggle-Recoil.

What the adjustor does is named below in the general description. Later these are taken up in considerable detail for there are many little actions that should be done correctly, in order that the whole be correct. Each one may be small in itself, but very important as an essential in the success of the movement.

- The names of the steps of the Seven Point Drill are:
- Count One—Palpation technic; patient in adjusting posture.
 - Count Two—Pointer finger technic—everything done on this count that pertains to finding and pointing out the place of contact.
 - Count Three—The placing of the adjustor's feet and body in a poised and alert posture.
 - Count Four—The placing of the nail hand in contact with the vertebra to be adjusted.
 - Count Five—The placing of the hammer hand on the nail hand.
 - Count Six—Preparation for the recoil by checking up on the line of drive; the distance of drive; the force intended and the initial pressure; relaxation.
 - Count Seven—Give the adjustment by straightening the elbows with a spasmodic snap and supporting the movement by dropping the weight of the poised body into the act.

The first requisite before giving the adjustment, as described by this Seven Point Drill is to see that the patient is in the proper posture, with the knees placed correctly for good relaxation and the face turned according to the mechanics of the spine.

Sometimes the Seven Point Drill is counted as an Eight Point Drill where extra measurements are required, as in transverse contact adjustment.

The following detailed description of the Seven Point Drill will cover technical descriptions of making and use of the toggle as well as contacts on the hand.

While we believe that correct contact and line of drive and visualization is of far more importance than standing positions, yet we must have some standard arbitrary positions as a working basis for the instruction of Technic. There must be something to vary from if we have intelli-

gent variation. In actual adjusting it should be kept in mind that the adjustor should vary these arbitrary rules in order to suit the exigencies of the case and the adjustor's own peculiar graces. He can attain speed much better if he is not hampered by, which to him, are coercive methods.

Art. 71. COUNT ONE. Prone Palpation.

Palpate to the vertebra to be adjusted. Count accurately and be sure to get the same one given by the listing in the analysis. If one is not sure of V. P. he should count the cervical vertebrae so as to be sure. Until the adjustor becomes familiar with the back by repeated adjusting it is best to check the count by palpating the whole spine while the patient is thus prone. Palpation should be done carefully, but rapidly enough not to tire the patient by keeping him in that position too long. Practice palpation so that you will not "fumble".

While making this palpation, it is best to stand so that the wrist and arm that is used for palpation are in no wise on a strain, by being bent into an awkward position. Do not attempt to stand in one position throughout, but use "footwork" freely to give the palpating arm plenty of freedom. After you have found the vertebra to be adjusted you are ready for the next count.

Art. 72. COUNT TWO. Pointer Finger Technic.

Since in palpating, the middle finger of the palpating hand is the main finger for counting, (see Palpation) that finger now becomes Pointer Finger or Index Finger. The other fingers should be folded up out of the way. Find the exact spot of contact on the vertebra, designated by the listing in the analysis, and use the finger as the name implies—to point out or indicate the spot of contact, so that a proper placement of the nail point can be made. Do not cover the place of contact with Pointer Finger but point to the spot with the tip of the finger.

There are many other things to be done on this count, depending on the kind of contact used and the region where the adjustment is to be given; as, finding the contact on the atlas, sacrum and ilium. Also, the measurements for lamina and transverse process contacts come under the heading of Pointer Finger Technic. (see Drills).

Art. 73. COUNT THREE. Standing and Flexing Technic.

In order to aim the toggle properly the adjustor should convey his body to the proper posture. This can, in some instances, be done by body flexing; but one should never flex the body so as to be awkwardly poised. It is clear that the best way to avoid this is to be not stingy of footwork. Step into such a position that you will be well poised and feel able. The adjustor should place his feet so that he will

have his body weight under control and ready for instant use. To do this, have the feet somewhat astride and flat upon the floor but with the weight poised upon the balls of the feet.

One should have in mind, the episternal notch; to have it in the line of drive and the proper distance from the back. One cannot use the toggle properly if he is leaning over too close to the patient's back; and the toggle is ineffectual if one is too far from the back. The former is a common error.

All standing and flexing should be done on Count Three, for if done afterward it will disturb the contact.

Art. 74. COUNT FOUR. Nail Hand Technic or the Technic of Contact.

At all times, in giving the toggle-recoil, the hand should be arched. Sometimes, it will be necessary to use a low arch, and sometimes an extremely high arched nail hand. (see Contacts) An arch has several important functions:

First, it prepares Nail Point One, if Nail Point One is used.

Second, steadies the hand and prevents it from slipping. A slight pressure, or the mere resting of the fingers upon the back or neck, releases "nervous" tension in the arm, permitting relaxation. This is especially true in cervical adjusting. In adjusting cervicals, the hand must not be stiff and rigid, for that makes the arm tense; but relax the hand so that the fingers will fall upon the neck or shoulder, as the case may be.

Third, the arch concentrates the adjusting force upon a small area—the spot of contact. In walking upon snow, snowshoes are used to distribute the weight over a large area, so there be but little penetration. In giving an adjustment, however, you desire penetration, so you concentrate, instead of distributing your forces.

Fourth, it prepares a place for the hammer hand to rest without slipping downward.

Fifth, the arched hand brings Nail Head in the line of drive between Episternal Notch and Nail Point One.

One should place Nail Point One, by first resting the apex of the pisiform bone upon the finger nail of Pointer Finger, with the tips of the fingers of the nail hand resting on the back. Then remove the pointer finger and allow the Nail Point One (distal surface of pisiform bone) to settle down upon the designated spot.

Nail Point Two should be rolled in on the spot of contact. This rolling movement strokes the back of the pointer finger near the tip and pulls away the surplus muscle on the edge of the palm of the hand, giving better access to Nail Point

'Two, which still is sufficiently padded with muscle so that it will not hurt the patient or the hand.

In the cervical region, always place the fifth metacarpal bone of the nail hand, exactly at right angles to the spine. This is a point to be carefully observed, for the cervicals are very small and it is easy to cover structures that are not to be struck by the adjusting force.

If in placing Nail Point One, the fifth metacarpal bone is pointed directly away from the adjustor, or nearly so, the arch can be held up without muscular effort in the forearm, by holding the hand still and swinging the elbow away. This should be done, anyway, to bring the elbows of the toggle into the plane of drive.

Art. 75. COUNT FIVE. Hammer Hand Technic.

Arch the hammer hand to prepare Hammer Head. Place Hammer Head, (which is the distal surface of the pisiform bone of the hammer hand), upon the nail head (which is the depression at the base of the thumb on the edge of the wrist.) This puts hammer hand in position to grasp the edge of the wrist, with the fingers and thumb wrapped around the wrist at right angles to it. This kind of grasp is necessary, in order to be able to extend the toggle without binding, or cramping the wrist. By grasping the wrist in this way, not tightly but snugly, one finds that the toggle extends easily without hindrance or discomfort.

Art. 76. COUNT SIX. Toggle Technic.

See that the toggle is evenly made. The slight unevenness made at the elbows by having one hand higher than the other can be evened by the shoulders. The elbows have a bend of approximately 140 degrees or the minimum bend that will give muscular slack.

Calculate the toggle distance. That is, be sure your toggle will extend, without pushing the patient's back, yet enough to get the concussion delivered "sweetly". Toggle distance can be measured by trying out the toggle—extending it; but the experienced adjustor usually can judge the distance without trying it. Yet the experienced adjustor is not disgraced by so doing.

Check up on the initial pressure on the back or neck. A common error is to press too hard. This causes the patient to tense his back or neck; besides, the adjustor cannot relax when his arms are making pressure. The amount of pressure should not be any more than the "lazy weight" of the hands and arms upon the neck or back. That lazy attitude is a splendid way to relax, prior to giving the concussion.

The adjustor should see that he is relaxed at this moment and that the patient also is relaxed. Any device to draw

the patient's attention from himself is useful; as, talking to him or asking him to make a slight movement or say something. (see Postures.)

Art. 77. COUNT SEVEN. Recoil Technic.

Deliver the adjustic move with all possible speed by drawing the elbows toward each other. Let the poised weight of the body be behind the action to hold the upper end of the toggle steady. Avoid pounding, by causing the hands to go forward from where they rest and never, never draw them back to "get a running start". The muscular slack of the arms and the amount of travel the elbows have, before coming straight give concussion without "hauling off" to hit it. The arms should be straight or nearly so at the end of the drive. Relax immediately when the end of the thrust is reached and allow the recoil to occur. Do not try to be fast, by trying to pull the arms back quickly. No matter how quick you believe yourself to be, you are not quick enough to beat a recoil; you but interfere with it.

Give the concussion of forces to the back without pounding in such a manner that it will arouse the recoil of Innate Intelligence in the body of the patient. Do not try to adjust by the muscular strength of the arms alone. You may move a vertebra that way, by brute force, but you seldom will adjust it that way. It would only result in a push. If the toggle has not extended at the end of the thrust, your arms will still be pushing when the adjustment should be over with. Keep the mind on the vertebra to be adjusted and what you are going to do with it.

Art. 78. SPEED DRILLS.

An excellent drill to practice speed is to lean over, letting the arms hang loosely from the shoulder. Let them be limp and relaxed. This could be called Count One. On count two snap the elbows straight with all possible speed.

The Three Point Drill also, is good for speed. Proceed as follows: Lean over, as for the Speed Drill. Count One, place hammer hand on nail head, count two, grasp the wrist, count three, snap the elbows straight as speedily as possible.

The use of the Speeder is valuable in attaining speed as well as in getting force enough at the same time. Care should be taken that it does not make the hands sore with too steady practice; also be careful of falling into bad habits with it; as, pushing the plunger down slowly and allowing it to come back with a snap and thinking that you have made a swift concussion. The swiftness should be in delivering the force and not in trying to back away from it; that part will take care of itself if you make your concussion swift enough.

Another good way to attain speed is to place peanuts near

the edge of a bed and using the Three Point Drill, crack the peanuts. It requires high speed to do it.

Whether you succeed with the toggle-recoil or not; whether you will like it or not, depends upon the speed you use with it and proper contact, of course.

Art. 79. FIVE POINT DRILL.

The Five Point Drill is a drill for forming a good arch. On count one, the hands are placed palms together. Two, the fingers are spread. Three, the thumbs are spread far apart carrying the palms from each other by bending the fingers at the knuckles only. Keep the fingers straight with the tips, only, touching. Have the heels of the hands touching, but no other part. This forms the proper arch. Four, swing hands downward so that the heel of the hand and all the finger tips are in a horizontal plane at the side, near the hip. Five, swing hands back into position three. Repeat many times until you can make a good arch.

Art. 80. LIMBERING DRILLS.

Any drills of gymnastics which will make a person supple and quick is good for toggle-recoil. Keep the hands and arms limber. A musician is called an artist; so is a dancer. They are artists because they are able or skilled with their hands or feet, or throats. A chiropractor is no less an artist than these; at least he should not be any less skilled in his line of artistry. They practice many hours a day to make them supple and dextrous. The good adjustor does the same.

Palpation

Art. 81. PALPATION.

Palpation is the art of feeling, pressing, and exploring with the fingers to gain information.

Art. 82. VERTEBRAL PALPATION.

Vertebral Palpation is the art of feeling, pressing and exploring with the fingers the region of the spinal column, to gain information of conditions there.

Palpation has been developed into a real art and science in Chiropractic. If a chiropractor will take the trouble to develop his touch to the high standard of the best trained of the blind, so much the better for him. Of course not many train themselves to this extent, but at that, a good chiropractor is a good palpator.

It is evident that to attain a high standard of proficiency, a person must practice a great deal. This practice need not be monotonous, if the student will make his work scientific; set a goal and work for that goal. We will endeavor to tell a few of the things that will make your practice more scientific and to show you what it really is that you are

striving to accomplish. The practice is for the development of the sense of touch, and as in the study of music it requires a great deal of practice. Palpate anything and everything for practice. Not only is it necessary to develop the sense of touch by these methods but it is also necessary to practice palpation on the human back to specialize; to get acquainted with the feeling of tissue under the tips of the fingers and the hardness and softness as the tips of the spinous processes glide under the fingers. This is a sensation not well perceived at first. It takes practice while thinking about it. By practice a person does not increase the number of touch receptors but he does sharpen his perception. It trains him to pay more attention to what his finger tips tell him. The touch receptors always give the information but an untrained person is more inattentive than a trained person to what they are saying. To train attentiveness to the fingers is what the practice is for, for actually, sensation is in the brain and not in the fingers.

Art. 83. MENTAL PRACTICE.

So, after all, palpation practice is mental drill. The careless palpator is mentally lazy. It is certain that a mere rubbing of the back with the fingers, with the mind on something else, will not serve to connect the information with the receiver. The palpator should concentrate mentally on what he is doing; to "listen" to what his finger tips are saying. As a person narrows his lids to sharpen detail in vision, and seems to project his educated mind into the eyes to see something definitely, so one feels that he is projecting his educated mind into his finger tips; concentrates his attention to that spot. Since most of us are "single track" perceivers, we will be unaware of things going on about us. Therefore we cannot talk, visit, or solve problems of other kinds while palpating. If the student will practice palpation in the manner explained it will remove much of the humdrumness from his work and give him scientific interest in it. There are other principles included in this interest.

Art. 84. VISUALIZATION.

Visualization is the mental reconstruction of objects of familiarity; of concepts built from educationally stored percepts. A person mentally reconstructs a vertebra and its position, normal or abnormal, by using his knowledge gained from the study of Orthopedics. The nucleus of this reconstruction is what information one can, at the present moment, gain from the palpable parts of the vertebra. Certainly, one could not palpate the whole vertebra—just the little hard lump that the tip end of the spinous process makes under the flesh. This, then, is the nucleus that you are able to perceive. Then you build onto that palpable

lump, the rest of the vertebra from your previous knowledge of the vertebra. It is evident that you cannot thus rebuild it unless you know a great deal about it. In this manner you are able, with a fair amount of accuracy, to determine the normal or abnormal positions of vertebrae. You can see that good visualization will require mental concentration, knowledge of the spine, sincerity of intentions and persistence.

Art. 85. THE SENSE OF TOUCH.

In the cultivation of the sense of touch, the student should use light stroking. While he is learning, this is especially necessary. Even after one has become a palpator, a light touch is best for palpation for it gives more information as a rule. There are more than one kind of receptors for feeling. Touch receptors are very superficial and require motion to register best. Pressure tires and benumbs them. They are most numerous in the tips of the fingers and tip of the tongue. The use of touch receptors give the most accurate "localization." In the deeper structures of the skin and in many of the internal tissues of the body are pressure receptors—much like the touch receptors, except that they require pressure to make them register. By the very fact of their location, they have not as much ability of localization as those of touch. Of course, we use these in palpation in actual practice, on occasion, but if a person trains himself to depend upon them his palpation cannot be so accurate as when he uses touch mostly. One can assure himself that the pressure sense is always available if he needs it, while he cannot reverse the order so easily. The beginner always wants to palpate heavily. This is from a mistaken purpose. The purpose of the beginner, his single goal, is to cultivate the sense of touch. He is not "in practice" and the health of the patient does not, while he is learning, depend upon his work. He has many other things to learn before he can palpate "for business." He needs to know Orthopedic, Chiropractic Analysis and many other things before he can actually palpate in the full Chiropractic sense. The beginner is inclined to make the mistake of trying to list the vertebra before he knows what listing is; trying to dig it out to see what it is like. He should get this information from Orthopedic and not from a live specimen. After you have learned to palpate, then learn to count bumps accurately. When you can count bumps, begin to visualize, and from your visualization list the positions.

Art. 86. COUNTING.

Too much stress cannot be laid upon accurate counting. Accurate adjusting cannot be done without getting the right vertebra. Even with the listing of the spinograph, or other aids, one must be able to count when his patient is

on the bench to be adjusted. There has been no method or devise discovered, as yet, to take the place of palpation.

Art. 87. PRONE PALPATION.

For the reason that the prone position of the patient alters the positions of vertebrae from that of the sitting posture, the student should learn to count and visualize with the patient in the prone position as well as the sitting. It is good practice to palpate first in one position, then in the other.

Art. 88. WET AND DRY PALPATION.

The condition of wet or dry poisoning can be ascertained by palpation of the back and neck. This is not hard to do but one should have some practice as well as knowing the symptoms.

The condition of Dry Man is generally accompanied by a harsh, dry skin, though a rough, dry skin does not always indicate Dry Man. People who bathe often in hot water with a too free use of harsh soaps may deceive the palpator. A little practice will enable you to distinguish the true from the false. In Dry Man, the hair and nails are apt to be dry and brittle. The symptoms show that the secretions in the body are not plentiful, and perhaps there may be too much excretion of water, as in diabetes.

The condition of Wet Man is generally accompanied with moist skin, but there are exceptions. Do not be misled by normal perspiration. In Wet Man the skin is inclined to be clammy with a firm edematous "feeling" and may be oily. The scalp and hair may be oily and other symptoms of internal poisoning will bear one out in his work.

Art. 89. PALPATION FOR FEVER.

A person can palpate for fevers, as in a febrile disease. You can detect the presence of fever quite well enough for practical purposes without using a clinical thermometer. Since our adjustment is the same for one degree of fever as for five degrees, we do not need to know the degree except to satisfy curiosity or for purposes of study.

For heat palpation, the dorsal surfaces of the fingers are best, for in the skin of the backs of the fingers the heat receptors are most numerous. Feeling heat is a special branch of a special sense, just the same as touch is, but is quite different from touch.

Art. 90. PALPATION FOR HOT BOX.

In much the same manner the dorsal surfaces of the fingers are used for palpation for impingements in the region of the spine. The backs of the fingers are used to test the heat of different areas on each side of the median line. Keep close enough to the median line to be over the exits of the nerves from the foramina. Raise the hand each time

a spot is tested, momentarily, to allow the temperature of the fingers to return to normal. The hottest places on the back indicate impingements. Corroborate this with other knowledge of the case. A palpable hot box indicates an acute case.

Art. 91. PALPATION FOR TAUT AND TENDER FIBERS.

A taut fiber is a taut string, supposed to be connective tissue, varying from the size of a thread to a good sized cord. Sometime it "fans" out a little at one end. It extends horizontally from the spinous process to the adjacent transverse process. Sometimes, it may take an oblique direction. It indicates an impinged nerve in that region. The spinous process to which it is attached is the subluxated vertebra. This taut fiber does not indicate the laterality of a subluxated vertebra and can in no wise be used for listing. It merely indicates a subluxation of some kind, and it may not be the Posterior kind in every case, or there may be no laterality at all. When this fiber is tender it indicates an acute condition.

It is palpated by brushing the palpating fingers across its course, the movement being parallel to the spine and near the spinous process. If acute, it requires very little pressure. It is best sensed by the light delicate stroke. In atlas subluxations, the taut fiber may be found in a vertical direction between the atlas and axis or between the atlas and the occiput, on the right or left side. The stroking here is horizontal.

Palpation Method

Art. 92. PREPARATION OF PATIENT.

The patient is prepared for palpation by being dressed in some garment that can be removed from the back, (a narrow space is all that is necessary) so as to expose the bare back. Do not try to palpate through clothing, not even through the thinnest of clothing. The back should be absolutely bare. There should be no strings, elastics to confuse the count; not even a string of beads on the neck.

Art. 93. POSTURE FOR PALPATION.

For analysis, the patient should be seated on a stool about fifteen to eighteen inches high. This stool should have a level top and have no cushioning. The patient should be seated on the stool in a natural and easy position. He should not be too straight or leaning over, except at times when the palpator may require that position for some purposes of comparison, as in counting. The feet should be placed side by side, flat upon the floor and the hands should be in the lap. The knees or legs should not be crossed and the hands should not be resting on the hip or on some other object near; and the body should not be twisted. These positions

twist the spine or raise the pelvis on one side or the other, thus making curves, and all these are misleading to the palpator.

Art. 94. POSITION OF THE PALPATOR.

The palpator should stand at the side of the patient (either side) with his hand on the patient's shoulder, to steady himself and to steady the patient. Have the hand on the patient's shoulder so that the thumb will be to the posterior and the fingers toward the anterior. Do not lean on the patient or pull him out of line. The other hand is used for palpating, and you can always know that you are using the proper hand for palpating if the little finger leads down the spine. For cervical palpation, the palpator's posture is the same, except that the forehead of the patient rests in the palm of the hand of the adjustor. With this hand the head can be lowered toward the anterior, or brought more to the upright position, as need be, to relax the neck muscles and ligaments for easier palpation. When removing the hand from the forehead, give the patient warning by removing the hand slowly. Never "pump" the patient's head up and down violently, as some careless palpators do, in finding V. P. Do not pull the patient's head to one side when you are palpating cervicals. Always keep the forearm horizontal as much as possible, and the hand relaxed and easy, in a straight line with the forearm, with exception of the arch of the hand. As you work from above downward, bend over to keep the forearm horizontal and straight. The hand should be slightly arched, so as to prevent the hand from touching the back or clothing. Do not rest the hand on the back. The arched hand also presents the finger tips of the first, second and third fingers in a straight line. The fingers should be close together—not spread apart. The counting and main work of palpating is done with the middle finger tip, the others assisting and helping to "localize". You will find it more difficult to count accurately with the fingers separated.

In palpating, stroke from above downward with three palpating fingers. If the first stroke does not net the information, stroke again. When you have counted to the vertebra in question, stroke over its top and sides, always comparing it with the one above and the one below. In the cervical region it is necessary to use more pressure. Also it may be necessary in palpating for ankyloses, rotations and the like. In the cervical region you compare the junction of the prongs, (bifurcation) with the junction of the prongs of the spinous above and the one below. In prone palpation, the same care should be taken to keep the forearm and hand straight and relaxed. As you palpate from superior to inferior, sidestep, so as to keep it in that position. In prone palpation, as in the sitting posture the little finger

leading down the spine is the indicator of the proper hand to use.

When you begin counting vertebrae, naturally you must have a place to begin. If you have learned cervical palpation, the best place to begin is with the atlas and axis. If you are beginning, just learning to count, the place to begin is the first dorsal. Since you cannot find the first dorsal by palpating through the cervicals, it will be necessary to use some other method. The following is the one commonly used in the Freshman Class: Stand directly behind the patient. Find the little notches in the outer extremities of the shoulder blades; the projections overhang the shoulder joints, and give to the shoulders their squareness. This notch is the acromial notch in the acromion process of the scapula. Placing the tips of the middle fingers in these notches, step the forefingers toward the neck along the ridge of the shoulders. Then, imagining a line across the spine, between the two forefinger tips, step the thumbs over to the median line of the body, exactly in this line. Unless the patient is unusually square shouldered, or slope shouldered, the thumbs will be upon the first dorsal spinous process. Then exchanging the thumb for the middle finger of the palpating hand, step to the side into the position for palpating and proceed to count vertebrae from above downward. In counting vertebrae, always count from above downward. This is more exact. The vertebrae are numbered from above downward; it is easier to stroke with the aid of gravity than against it; and it is more natural to work away from the starting place, which is number one.

Art. 95. LANDMARKS.

Note and keep in mind or on paper any peculiarities of the spine for landmarks; an unusually large, or short, or long, or a bent process. Skin markings are not reliable. The most common landmark is called V. P. (vertebral prominens). It is usually the seventh cervical vertebra, but often is the sixth cervical or the first dorsal. Never put any reliance in landmarks, unless you yourself list them, and do not trust your own landmarks if your listing is old. Always be accurate in your count even if you have to palpate the whole spine and use a little arithmetic to check yourself. But when you have once established reliable landmarks, they are great time savers. For skin marking, as in NCM work, the skin marking pencil is used, but do not rely upon them in the change from sitting to prone posture for adjusting.

Art. 96. ADMONITIONS.

The palpator should have his hands clean and fingernails trimmed, so he will not cut or scratch the patient. The palpator should not lean against the patient, or pull him out

of position with the hand. He should not put weight on the patient's shoulder with his idle hand. The patient should be clean, and have the clothing arranged so that the palpator will have no trouble in his work. If there are different postures or other preparations to be made, as in nerve tracing, the patient should leave nothing to hinder the palpator's work.

Art. 97. AIDS TO PALPATION.

In palpation, vision helps a great deal. One can see the "bumps" on thin people and you can even see laterality of the spinous processes sometimes. In investigating rotations and curvatures, the palpator may use vision a great deal. When vertebrae are hard to count because their spinous processes seem to merge, put the palpating fingers on the place where you think there is an interspinous space and have the patient alternately straighten up and "slouch" down. If there is a real space it will open up when the spine bends, and close when it straightens. This test can be used for suspected ankyloses. An interspinous space between ankylosed vertebrae does not open and close. This method can also be used to determine where the lumbar region ends and the sacrum begins. The segments of the sacrum do not move, when the back bends or straightens.

Art. 98. PALPATION OF ROTATIONS AND CURVATURES, ETC.

In rotations the muscles of the back are bulged on the side of the rotation over the transverse processes, and much firmer than on the other side. The line of spinous processes are usually close to the muscle as most rotations are in curvatures. It is not always easy to palpate the transverse processes on account of the amount of muscles, unless the rotations are extreme. One should note curvatures in making analyses. They can be seen by stepping back a little from the patient. Not only can one see the curve of the line of spinous processes; but one can see the bulged muscle, on one side or the other. The palpator can, then, use vision to assist in his palpation. Not only can one palpate rotations and curvatures and for ankyloses, but he can investigate the condition of the ribs where they join the spine.

NERVE TRACING

Art. 99. NERVE TRACING.

Nerve tracing is really a method of palpation, but one in which the patient assists. It is a real science in itself—developed by Chiropractic for chiropractors. We can only give a limited explanation here—just its philosophy and modus operandi. If the student is so fortunate as to possess an old Volume VI he can read about Nerve Tracing, elaborately explained.

Nerve tracing is the process of tracing a tender nerve from the foramen to the periphery or from the periphery to the foramen. We apparently trace only the superficial nerves even when a visceral nerve is impinged, nevertheless, we find that in most cases the corresponding superficial nerve is tender. For instance, if a second dorsal subluxation is impinging a visceral nerve that goes into the cardiac plexus, we find tender, its corresponding superficial nerve from the second dorsal, around the course of the ribs, under the axilla, to a region over the heart. We can give no explanation of just why this is true, but true it is. Not only that, we find many stranger facts in nerve tracing.

A nerve cannot be traced unless it is tender—unless it is painful when pressed upon. The philosophy of this is that a nerve which is conducting abnormally is an abnormal nerve, and if abnormal, it is a sick nerve and a sick nerve can be disturbed easier than other nerves by pressure. Therefore a person can trace a tender nerve in the midst of normal nerves, by a systematic line of pressures. This systematic line of pressure is along the course of the nerve. Not knowing the course of the nerve, the palpator makes a trial by stroking across the supposed course of the tender nerve with the pressing finger.

For palpation of this kind, nerve tracing, place the patient in any position that is most convenient for both palpator and patient. The regular palpating posture is best. The palpator supports the middle finger, (the pressing finger), with the thumb and forefinger. With the middle finger thus braced, one can exert sufficient pressure for nerve tracing. With this braced finger, press firmly and stroke or rub crosswise to the course of the nerve, with strokes about a quarter of an inch in length. Then raise the tracing finger, mark the spot found, with skin marking pencil and try another place not more than a quarter of an inch in advance. Be careful at branchings and take very short steps, being sure of the tests.

Art. 100. VALUES OF NERVE TRACING.

Nerve tracing is of value in making analysis. It can be used to check up subluxations selected by palpation or other means; or it can be used to select subluxations; or check those found by other means. It does not list subluxations; it merely enables you to find the impinged nerve and from this knowledge, you find the vertebra that is making the trouble and list it. It is of value in convincing patients by its visible presentation of a principle in Chiropractic philosophy. When the patient sees (or feels) you trace a tender nerve from subluxation to periphery there is no better exhibition of "from brain cell to tissue cell" idea. Not even recovery itself shows it so plainly.

In nerve tracing one must have the coöperation of the patient, who tells or signals when the tender nerve is pressed. Therefore one cannot nerve trace a patient who is mentally deficient, an unconscious person, or small children, unless one can judge a little by the flinching when the nerve is pressed upon.

The patient is prepared as for palpation, but in case of extended tracing, a loose robe like a kimono is advisable. Nerve tracing can be extended in this way beyond the back, but it is necessary to nerve trace, in the region of the spine, on the bare back.

Art. 101. A GENERAL TRACING—EFFERENT TRACING.

When the patient is in the posture you require, press with the tracing finger down the whole length of the spine on both sides, in quarter inch steps, about one and a fourth inch from the median line. Mark the tender spots. These tender spots can also be found in the following manner. Rub soap on the back, and then with pressure glide the tracing finger down each side of the spine about one and a quarter inch from the median line. Your finger slips easily and when it passes over a tender nerve the patient will inform you. Mark the tender spots. Then taking them up one by one, trace each toward its periphery, by stroking across its course in very short steps—not over one-fourth inch. Mark each tender spot found with the skin marking pencil. The line of marks thus found indicate the tender nerve.

Art. 102. AFFERENT TRACING. FROM PERIPHERY TO FORAMEN.

Locating the exact place of the sickness, pathology, or pain, trace the nerve in the manner described above, to its emission from the spine. There is no method so convincing to a patient as this.

Art. 103. NERVE TRACING USED AS A VERIFIER FOR ANALYSIS.

When your Rule of Major has told you in what "places" to look for your subluxation, look in those places for tender nerves; tracing either efferently or afferently, or both.

S T A N D A R D D R I L L S

Toggle Recoil on Posterior Subluxation

Art. 104. THE DORSAL REGION; 2nd dorsal to 3rd lumbar, inclusive. Spinous Process Contact.

These drills should be studied in connection with the principles and description in the first part of the book in order to perform them intelligently. However, each drill is quite a complete unit within itself and those which are not, are

so similar that it would have been a waste of time to write them out in full.

Drill No. 1. Subluxation P. R., The Dorsal Group.

Stand at the right of the patient; the SIDE OF LATERALITY.

Turn the patient's face to the right.

Stand opposite to palpate; palpate with the left hand, little finger leading down the spine.

See that the patient has the correct posture for each vertebra to be adjusted. See that the patient is perfectly relaxed before giving the concussion.

Always be sure of your counting.

Count One—Count to the vertebra to be adjusted.

Count Two—Find the posterior and right aspect of the tip of the spinous process. Point out the spot of contact with the tip of the Pointer Finger. Fold all the other fingers out of the way.

Count Three—Take standing position so that the line of drive will be correct. Remembering that the spinous processes have rotated to the left, visualize, and place the episternal notch by standing or flexing the body or both, so that the line of drive will be opposite, in direction to that of the listing, in this case, to the anterior and left. Bend over to obtain the proper toggle distance, and lean to the superior or inferior, according to the curve of the back.

Count Four—Place Nail Point One with the hand properly arched. Finger tips resting on the back on the other side of the spine from the adjustor. The 5th metacarpal bone should be approximately at right angles to the spine. (See Contacts, and Toggle Parts).

Count Five—Place Hammer Hand and grasp the wrist of Nail Hand correctly.

Count Six—Check up on the Toggles. See that the weight of body is poised, ready for instant use. Test or estimate the toggle distance, (this is important). See that both elbows are well out from the body, and have the arms so that a line drawn through the elbows will be parallel to the spine. Relax and see that only the weight of the hands and arms rest on the back.

Count Seven—Give the adjustic concussion by straightening the arms with all possible speed, letting the toggles straighten to their limit. Use the poised body weight to support the movement. Keep the mind on the vertebra and not on the arms. Do not lift the hands a single instant from the back in giving the concussion, but let the

nail point travel, from its state of rest, straight away from the episternal notch. It is only by perfect relaxation of the arms that they can be made to attain high speed from a perfect standstill. The student should practice this until he has abolished the tendency to draw back in order "to haul off and swat it." Drive to the anterior and left.

This drill will serve as a model for all those for the Dorsal Group to save writing each of them out in full as this one has been. Also use this drill with modifications for all the other drills. Necessarily much abbreviation will have to be used, and what has been said about this drill in general will apply to the others.

No. 2. Subluxation, P. R. S.; 2nd dorsal to 3rd lumbar inclusive.

Adjusted from the SIDE OF LATERALITY.

Stand at the RIGHT side of the patient.

Turn the patient's face to the right.

Stand opposite to palpate.

Palpate with the left hand; little finger leading down the spine.

One—Count to the vertebra to be adjusted.

Two—Find the P. R. S. margin of the tip of the spinous process.

Pointer Finger technic.

Three—Take standing position 45 degrees to the superior; not too far away.

Visualize to get correct line of drive.

Four—Place Nail Point One correctly.

Have the hand properly arched with 5th metacarpal bone pointing in a general direction away from you.

Five—Place Hammer Hand correctly.

Six—Have toggle arms at 45 degrees to the spine.

Seven—Drive to anterior, left and inferior.

See Drill No. 1 for general directions.

No. 3. Subluxation, P. R. I.; 2nd dorsal to 3rd lumbar inclusive.

Adjust from the SIDE OF LATERALITY.

Stand at the right of the patient.

Turn the patient's face to the right.

Stand opposite to palpate.

Palpate with the left hand; little finger leading down the spine.

One—Count to the vertebra to be adjusted.

Two—Find the P. R. I. aspect of the tip of the spinous process.

Three—Take standing position 45 degrees to the inferior, not too far away.

Four—Place Nail Point One with the 5th metacarpal bone pointing in a general direction, away from the adjustor.

Five—Place Hammer Hand correctly.

Six—Have arms at 45 degrees to the spine.

Seven—Drive to anterior, left and superior.

See Drill No. 1 for general directions.

No. 4. Subluxation P. L.; 2nd dorsal to 3rd lumbar inclusive.

Adjust from the SIDE OF LATERALITY.

Stand at the LEFT of the patient.

Turn the patient's face to the left.

Just the same as No. 1 for P. R. except that the directions are reversed.

No. 5. Subluxation P. L. S. 2nd dorsal to 3rd lumbar inclusive.

Adjust from the SIDE OF LATERALITY.

Stand at the LEFT of the patient.

Turn the patient's face to the left.

Stand opposite to palpate. Palpate with the right hand.

Just the same as No. 2 for P. R. S. except that the directions are reversed.

No. 6. Subluxation P. L. I. 2nd dorsal to 3rd lumbar inclusive.

Adjust from the SIDE OF LATERALITY.

Stand at the LEFT of the patient.

Turn the patient's face to the left.

Stand opposite to palpate. Palpate with the right hand.

Just the same as No. 3 for P. R. I. except that the directions are reversed.

No. 7. Subluxation P. R.; 2D to 3L inclusive.

Adjust from the SIDE OF LATERALITY.

Stand at the LEFT of the patient.

Turn the patient's face to the right.

Stand opposite to palpate.

Palpate with the right hand.

One—Count to the vertebra to be adjusted.

Two—Find the P. R. aspect of the tip of the spinous process.

Point out the spot of contact with the pointer finger

tip, and the ball of the pointer finger (Palmer surface) reaching over the extremity of the spinous process.

Three—Stand close to the patient and lean over to the right side so far that the eyes can look downward to the floor.

Four—Place Nail Point One on the spot indicated by the pointer finger. (See Nail Point One and Contacts.)

Have the 5th metacarpal bone pointing away in general.

Five—Place Hammer Hand correctly.

Six—Have the arms parallel to the spine.

Seven—Adjust to anterior and to the left.

Adjustor drives somewhat toward his own feet, allowing for contour of back, of course.

This will serve as a model, with modifications, for the other methods from the side opposite to laterality, in the dorsal region.

For general directions, see Drill No. 1.

No. 8. Subluxation P. R. S.; 2D to 3L inclusive.

Adjusted from the SIDE OPPOSITE TO LATERALITY.

Turn the patient's face to the right.

Stand at the LEFT of the patient.

Stand opposite to palpate. Palpate with the right hand.

One—Count to the vertebra to be adjusted.

Two—Find the P. R. S. aspect of the tip of the spinous process.

Three—Move to 45 degrees inferior.

Stand close to the bench and lean far over the patient.

Four—Place Nail Point One with the 5th metacarpal pointing away, generally.

Five—Place Hammer Hand correctly.

Six—Have arm oblique to the spine 45 degrees.

Seven—Drive to the anterior, left and inferior.

For general directions see Drills No. 1 and 7.

No. 9. Subluxation P. R. I.; 2D to 3L inclusive.

Adjusted from the SIDE OPPOSITE TO LATERALITY.

Turn the patient's face to the right.

Stand at the LEFT of the patient.

Stand opposite to palpate. Palpate with the right hand.

One—Count the vertebra to be adjusted.

Two—Find the P. R. I. aspect of the tip of the spinous process.

Three—Move to 45 degrees to the superior.

Stand close to the bench and lean far over the patient.

Four—Place Nail Point One with the 5th metacarpal away in general.

Five—Place Hammer Hand correctly.

Six—Have arms 45 degrees oblique to the spine.

Seven—Drive anterior, left and inferior.

For general directions, see Drills No. 1 and 7.

No. 10. Subluxation P. L.; 2D to 3L inclusive.

Adjusted from the SIDE OPPOSITE TO LATERALITY.

Use Drill No. 7 reversed.

No. 11. Subluxation P. L. S.; 2D to 3L inclusive.

Adjusted from the SIDE OPPOSITE TO LATERALITY.

Use Drill No. 8 reversed.

No. 12. Subluxation P. L. I.; 2D to 3L inclusive.

Adjusted from the SIDE OPPOSITE TO LATERALITY.

Use Drill No. 9 reversed.

NOTE—In adjusting any of these from the side opposite to laterality, the arch may be lowered a little and the 5th metacarpal bone may be turned some toward the adjustor to ease the hand and make the contact more comfortable.

No. 13. Subluxation P.; 2D to 3L inclusive.

Adjusted from EITHER SIDE.

Stand on the side that is most convenient.

Turn the patient's face away from the adjustor.

Stand opposite to palpate.

One—Count to the vertebra to be adjusted.

Two—Find the contact spot on the posterior extremity of the spinous process. Use tip of Pointer Finger to indicate it.

Three—Take standing position to inferior, alongside the patient, facing the superior, with one foot forward, so as to get close.

Four—Place Nail Point One with the 5th metacarpal at RIGHT ANGLES to the spine and the fingers resting on the back, on the side away from you.

Five—Place Hammer Hand correctly.

Six—Have the arms approximately at right angles to the spine.

Seven—Drive to anterior, allowing for contour of the back.

This drill will serve as a model, with modifications, for the other dorsal subluxations with no laterality.

For general directions, see Drill No. 1.

No. 14. Subluxation P. I.; 2D to 3L inclusive.

Adjusted from EITHER SIDE.

Stand on the side that is most convenient.

Turn the patient's face away from the adjustor.

- Stand opposite to palpate.
- One—Count to the vertebra to be adjusted.
- Two—Find the P. I. aspect of the posterior extremity of spinous process.
- Three—Take standing position far to the inferior, alongside the patient, facing the superior, with one foot forward, so as to get close.
- Four—Place Nail Point One with the 5th metacarpal at right angles to the spine.
- Five—Place Hammer Hand correctly.
- Six—Have the arms approximately at right angles to the spine.
- Seven—Drive to anterior and superior.
See Drills No. 1 and 13 for general directions.

No. 15. Subluxation P. S.; 2D to 3L inclusive.

- Stand on the side that is most convenient.
- One—Count to the vertebra to be adusted.
- Two—Find the P. S. aspect of the posterior extremity of spinous process.
- Three—Take standing position to inferior but lean far forward to the superior, alongside the patient, facing the superior, with one foot forward so as to get close.
- Four—Place Nail Point One with the 5th metacarpal at right angles to the spine.
- Five—Place Hammer Hand correctly.
- Six—Have arms approximately at right angles to the spine.
- Seven—Drive anterior and inferior.
See Drills No. 1 and 13 for general directions.

Art. 105. LUMBAR GROUP. Toggle RECOIL on Posterior Subluxations.

RULES:

Subluxations in this group, which have laterality, are always adjusted from the side of laterality.

Always stand on the side of laterality.

Patient's face may be turned EITHER WAY.

Always make the line of drive according to the contour of the back in order to get correct anteriority.

Drill the same as for dorsals except: always change pointer fingers.

The line of drive should have a little more slant for laterality than for dorsals.

NEVER STAND inferior for any of these subluxations.

No. 16. Subluxation P. R.; 4L and 5L.

Adjusted from the SIDE OF LATERALITY, always.

Stand at the RIGHT of the patient.

Stand opposite to palpate. Always change pointer fingers.

Drill the same as for Dorsal P. R. according to the foregoing rules.

No. 17. Subluxation P. R. S.; 4L and 5L.

Adjusted from the SIDE OF LATERALITY, always.

Stand at the RIGHT of the patient.

Drill the same as for Dorsal P. R. S. but with the foregoing rules.

No. 18. Subluxations P. R. I.; 4L and 5L.

Drill the same as for Dorsal P. R. I. with the foregoing rules, and

The adjustor NEVER stands 45 degrees to the inferior, but opposite and flexes the body to the inferior to take care of inferiority.

No. 19. Subluxation P. L.; 4L and 5L.

Use Drill No. 16, reversed, according to laterality.

No. 20. Subluxation P. L. S.; 4L and 5L.

Use Drill No. 17, reversed according to laterality.

No. 21. Subluxation P. L. I.; 4L and 5L.

Use Drill No. 18, reversed according to laterality.

No. 22. Subluxation P.; 4L and 5L.

Use Drill No. 13 for Dorsals, but with the foregoing exceptions and rules, and INSTEAD of standing to the inferior, alongside the patient, stand to SUPERIOR, alongside the patient, facing the inferior, and with one foot forward to get close.

No. 23. Subluxation P. S.; 4L and 5L.

Use Drill No. 15 for Dorsals, but according to the rules of this group, and

Stand to the SUPERIOR alongside the patient, facing the inferior.

Stand well back to the superior.

No. 24. Subluxation P. I.; 4L and 5L.

Use Drill No. 14 for dorsals, but according to the rules for this group, and

Stand to the SUPERIOR, alongside the patient, facing the inferior, and lean forward to take care of the inferiority.

Art. 106. THE FIRST DORSAL GROUP. TOGGLE RECOIL ON POSTERIOR SUBLUXATIONS.

Regions, 6th Cervical to 1st Dorsal, inclusive. Posterior Subluxations.

RULES:

When the subluxation has laterality always stand on the side of laterality.

Always have the patient's face turned to the side of laterality.

Always change pointer fingers.

Never stand inferior to adjust any subluxation in this group.

Always allow for the slope of the back in calculating the line of drive.

Always allow for the rotation of the spinous processes when the patient's head is turned.

Always place Nail Point One with the 5th metacarpal bone at right angles to the spine at that point.

Always relax hands and arms before giving concussion.

Always let the fingers rest on the neck or shoulder or both.

This is a special group because of the great amount of rotation of the spinous processes when the head is turned in posture.

DON'TS:

Don't stand too far away.

Don't place the 5th metacarpal bone obliquely to the spine.

Don't hold hand rigid.

Don't hold the nail hand straight—let the fingers rest on the neck.

Don't try to grasp the head with the fingers—get the proper contact and never mind the head.

Don't use the hand edgewise like an ax.

Don't hold the fingers in the air—let them rest on the neck.

Don't press on the neck or head with the palm of the nail hand—keep it arched.

No. 25. Subluxation P. R.; The First Dorsal Group.

Adjusted from the side of laterality, always.

Stand at the right of the patient.

Patient should have the proper posture for this region.

Stand opposite to palpate; palpate with the left hand.

Patient's face turned to the right.

- One—Count to the vertebra to be adjusted.
- Two—Find the P. R. aspect of the tip of the spinous process.
Change pointer fingers.
- Three—Remain opposite, but move forward until the episternal notch is directly above the spot of contact, making allowance for the slope of the neck at this place.
- Four—Place Nail Point One with the 5th metacarpal at RIGHT ANGLES to the spine.
Allow the hand to assume a low arch but do not let it rest on the neck. Let the fingers droop upon the neck and shoulder.
Do not attempt to grasp the head.
- Five—Place the Hammer Hand correctly.
- Six—Have arms parallel to the spine, approximately.
- Seven—Adjust to the anterior and left, always remembering the rotation of the spinous processes.
Do not attempt to accomplish this adjustment with great force but with speed.
- For general directions, see Drill No. 1 also
These drills are similar to the drills for lumbars.

No. 26. Subluxation P. R. S.; First Dorsal Group.

- Adjust from the side of laterality, always.
Stand opposite to palpate; palpate with the left hand.
Patient's face turned to the right.
- One—Count to the vertebra to be adjusted.
- Two—Find the P. R. S. aspect of the tip of the spinous process.
Change Pointer Fingers.
- Three—Take standing position 45 degrees to the superior, and not too far away.
Have episternal notch almost over the median line.
- Four—Place Nail Point One of the left hand with the 5th metacarpal at right angles to the spine.
- Five—Place Hammer Hand correctly.
- Six—Have the arms approximately 45 degrees oblique to the spine.
- Seven—Adjust with speed. Watch initial pressure and do not "pound".
See Drill No. 25 for general points.

No. 27. Subluxation, P. R. I. First Dorsal Group.

- Stand at the RIGHT of the patient.
Stand opposite to palpate; palpate with the left hand.
Patient's face turned to the right.

- One—Count to the vertebra to be adjusted.
- Two—Find the P. R. I. aspect of the tip of the spinous process
Change Pointer Fingers.
- Three—Take standing position opposite so that the point of contact will be opposite the inner side of the right knee.
Lean to the inferior; don't stand too far away.
- Four—Place Nail Point One of the left hand with the 5th metacarpal at right angles to the spine.
- Five—Hammer Hand technic.
- Six—Have arms parallel to the spine.
- Seven—Adjusting technic.
See Drill No. 1 and 25 for general points.

No. 28. Subluxation, P. I. First Dorsal Group.

Use Drill No. 25 reversed according to laterality.

No. 29. Subluxation, P. L. S. First Dorsal Group.

Use Drill No. 26 reversed, according to laterality.

No. 30. Subluxation, P. L. I. First Dorsal Group.

Use Drill No. 27 reversed according to laterality.

No. 31. Subluxation, P. First Dorsal Group.

Stand on either side; the one most convenient.

Stand opposite to palpate.

Turn the patient's face toward you.

One—Counting technic.

Two—Find the posterior aspect of the tip of the spinous process.

Change Pointer Fingers.

Three—Take standing position very far to the superior, at the head of the bench if possible, and lean toward the side opposite to that on which you are standing.

Have the episternal notch somewhat superior to the point of contact on account of the slope of the neck and back at this point.

Four—Place Nail Point One with the 5th metacarpal at right angles to the spine.

Five Hammer Hand Technic.

Six—Have arms approximately at right angles to the spine.

Seven—Adjusting technic.

See Drill No. 1 for general points.

No. 32. Subluxation, P. S. First Dorsal Group.

Stand on either side; the one that is most convenient.

Stand opposite to palpate.

Turn the patient's face toward you.

One—Counting technic.

Two—Find the P. S. aspect of the tip of the spinous process.

Change Pointer Fingers.

Three—Take standing position very far to the superior.

Lean toward the side opposite to that on which you are standing.

Have the episternal notch very much to the superior of the contact point.

Four—Place Nail Point One with the 5th metacarpal at right angles to the spine.

Five—Hammer Hand technic.

Six—Arms should be approximately at right angles to the spine.

Seven—Adjusting technic. Drive anterior and inferior, to the spine.

See Drill No. 1 and No. 25 for general directions.

No. 33. Subluxation, P. I. First Dorsal Group.

Stand on either side; the one that is most convenient.

Stand opposite to palpate.

Turn the patient's face toward you.

One—Counting technic.

Two—Find the P. S. aspect of the tip of the spinous process.

Change Pointer Fingers.

Three—Take standing position very far to the superior; but lean forward so that the episternal notch will be slightly inferior to the spot of contact.

Four—Place Nail Point One with the 5th metacarpal at right angles to the spine.

Five—Hammer Hand technic.

Six—Have the arms approximately at right angles to the spine.

Seven—Drive anterior and inferior to the spine at that point.

See Drill No. 1, and No. 25 for general directions.

Art. 107. THE CERVICAL GROUP. 2nd Cervical (Axis) to 5th Cervical, inclusive.

Toggle Recoil on Posterior Subluxations.

RULES:

Always have the patient's face turned toward the side of laterality.

Always allow for the curve of the spine in the neck in calculating the line of drive.

Always allow for contour of the neck in calculating the line of drive.

Always place the nail hand with the 5th metacarpal bone at right angles to the spine.

Always arch the hand and let the fingers rest on the neck or shoulder or both.

Always be sure that your contact is on the proper vertebra and on the exact spot of contact as found by palpation.

Always be sure that the posture of patient is correct, and that the position of the head and neck give a bridge with two supporting points.

Always roll in the nail point; use Nail Point Two.

DON'TS:

Don't place the 5th metacarpal obliquely to the spine.

Don't hold the nail hand rigid and straight.

Don't use the hand edgewise like an ax.

Don't hold the fingers in the air.

Don't hit the jaw or ear with the knuckles of the hammer hand.

Don't use the nail hand flat on the neck "snow-shoe" fashion.

Don't use the edge of the hand for nail point. Use Nail Point Two.

Don't bend the elbows too much.

Don't use a "one arm jab"; use both arms in a properly made toggle.

Don't use Nail Hand rigid with fingers spread "starfish" fashion.

No. 34. Subluxation, P. R. Cervical Group.

Stand at the RIGHT side of the patient.
(Side of laterality.)

Turn patient's face to the right.

Patient should have the proper posture for this group.

See that the patient is relaxed before giving the adjustment.

See that the head is pressed firmly upon the table to give "bridge", etc.

See above rules and don'ts.

One—Count to the vertebra to be adjusted.

Two—Find the P. R. aspect of the right prong of the spinous process.

Point out, (do not cover) this contact spot with the pointer finger.

Fold up the rest of the fingers and

Rest the knuckles on the back with the pointer finger extending toward the superior (this is important).

Three—Take standing position alongside the patient, to the inferior.

Have the episternal notch above the median line of the patient's body and a little to the inferior according to the slope of the neck. Remember the rotation of the spinous processes to the left.

(Note—the median line of the body, if extended would pass through the ear, approximately, when the patient assumes posture.)

Four—Roll in Nail Point Two with the hand relaxed, placing the 5th metacarpal bone at right angles to the spine at that point (This means at right angles to the spine and not to the bench.)

The hand should assume an arch with the fingers resting on the neck. The arch may be lower for the upper vertebrae of this group than for the lower ones.

Five—Place the Hammer Hand correctly; be sure that the knuckles will not strike the jaw or ear.

Six—See that the line through the elbows is at right angles to the spine (not to the bench).

See that the elbows have the proper relaxed toggle-bend.

See that the hands and arms are relaxed.

See that the initial pressure is very light (this is very important).

Seven—Adjust toward the anterior of the neck (at this point) and toward the left (of the neck at this point). This does not mean toward the left of the bench but in relation to the neck.

See Drill No. 1, for general directions.

This drill will serve as a model for the rest of the cervical drills with modifications of course.

No. 35. Subluxation, PRS. Cervical Group.

Stand at the right side of the patient.

Turn the patient's face to the right.

See that the patient's posture is correct.

One—Count to the vertebra in question.

Two—Find the superior right aspect of the right prong.

Three—Take standing position alongside the patient, to the inferior.

Have the episternal notch above the patient's median line and superior to the point of contact.

Stand well forward so that the position described can be taken.

Four—Roll in Nail Point Two with the hand arched and with the 5th metacarpal bone at right angles to the spine.

Five—Place Hammer Hand.

Six—Line through the elbows should be approximately at right angles to the spine.

Seven—Adjust with the drive toward the anterior, left and inferior to the patient's neck at that point.

No. 36. Subluxation, P. R. I. Cervical Group.

Stand at the right side of the patient.

Turn the patient's face to the right.

See that the patient's posture is correct.

One—Count to the vertebra in question.

Two—Find the inferior right aspect of the right prong.

Three—Stand alongside patient well to the inferior so that the episternal notch, when the body is flexed, is above the median line of the patient and to the inferior of the spot of contact.

Four—Roll in Nail Point Two with the hand arched and with the 5th metacarpal bone at right angles to the spine.

Five—Place Hammer Hand.

Six—Elbows at right angles to the spine and the proper toggle bend.

Seven—Adjust with the drive to the anterior, left and superior to the patient's neck. (these directions do not apply to the bench).

No. 37. Subluxation, P. L. Cervical Group.

Use Drill No. 34 reversed according to laterality.

No. 38. Subluxation, P. L. S. Cervical Group

Use Drill No. 35 reversed according to laterality.

No. 39. Subluxation, P. L. I. Cervical Group.

Use Drill No. 36 reversed according to laterality.

No. 40. Subluxation, P. Cervical Group.

Adjustor may stand at either side of patient.

Turn the patient's face away.

Stand with back to the patient in such a way that you can turn your body so as to face the superior with comfort. Place your free hand on the patient's forehead and palpate with the other hand.

One—Standing with back to the patient, alongside and inferior, count to the vertebra to be adjusted. Palm of palpating hand toward the face.

Two—Find the posterior aspects of both prongs.

Three—Retain the same standing position except that you check up on the line of drive and toggle distance by leaning away from the patient and having the episternal notch to the posterior of the patient's neck. (These directions do not apply to the patient's body or to the bench).

Four—Roll in Nail Point Two with 5th metacarpal at right angles to the spine at that place in the patient's neck.

Five—Hammer Hand technique.

Six—Arms at right angles to the spine.

Seven—Drive to the anterior of the patient's neck.

No. 41. Subluxation P. S. (Axis to 5th Cer. incl.)

Adjustor may work from either side.

Turn the patient's face away from you.

See that patient's posture is correct for cervicals.

Stand to inferior with back to patient and alongside. Stand so that you can turn quarter way around with your face and shoulders toward the superior.

Stand well forward or to the patient's superior, or lean in that direction.

Palpate as directed for P.

One—Count to the vertebra to be adjusted.

Two—Find the superior posterior aspects of both prongs.

Three—Check up on your standing position and line of drive and toggle distance.

Four—Roll in Nail Point Two with the 5th metacarpal bone at right angles to the spine.

Five—Place Hammer Hand correctly.

Six—Check up on toggle technic.

Seven—Drive anterior and inferior to the patient's neck.

No. 42. Subluxation P. I. (Axis to 5th Cer. incl.)

Adjustor may work from either side.

Turn the patient's face away from you.

See that the patient's posture is correct for cervicals.

Stand as for P. and palpate.

- One—Count to the vertebra to be adjusted.
- Two—Find the posterior inferior aspects of both prongs.
- Three—Take standing position with back to the patient, alongside and well to the inferior. Lean away from the patient, and have the episternal notch well to the inferior of the point of contact.
- Four—Roll in Nail Point Two with the 5th metacarpal bone at right angles to the spine.
- Five—Place Hammer Hand correctly.
- Six—Check up on the toggles.
- Seven—Drive to the anterior and to the superior of the patient's neck.

No. 43. Subluxation P. R. (Axis to 5th Cer.) From the side opposite to laterality.

Stand at the LEFT side of the patient (side opposite to laterality).

Stand with the back to the patient, alongside to the inferior.

Turn the patient's face away. (To the right).

Have the patient in proper posture for cervicals.

One—With right hand on patient's forehead, palpate with the left hand.

Palpating hand should have the palm toward the patient's face and with the little finger leading down the spine.

Two—Find the P. R. aspect of the right prong.

Three—Check up on standing position, which is approximately the same as for palpation.

See that the episternal notch is above the median line of the patient's body and to the posterior and right of the spot of contact. (These directions relate to the patient's neck and not to the bench or body.)

Four—Roll in Nail Point Two of the right hand with the 5th metacarpal bone at right angles to the spine.

Five—Place Hammer Hand correctly.

Six—Check up on the toggles.

Seven—Drive to the anterior, and left, of the patient's neck.

No. 44. Subluxation P. L. (Axis to 5th Cer.) From the side opposite to laterality.

Stand at RIGHT of the patient. (Side opposite to laterality).

Stand with the back to the patient, alongside and to the inferior.

Turn the patient's face away. (To the left).

Check up on the posture.

One—With the left hand on the patient's forehead, palpate with the right hand, with the palm toward the patient's face and the little finger leading down the spine.

Two—Find the P. L. aspect of the left prong for spot of contact.

Three—Retain approximately the same standing position except to move enough to place the episternal notch over the median line of the patient's body, and posterior and left of the point of contact.

Four—Roll in Nail Point Two of the left hand, with the 5th metacarpal bone at right angles to the spine.

Five—Place Hammer Hand correctly.

Six—Check up on toggle bend, toggle distance and see that the arms are at right angles to the spine in the neck.

Seven—Drive to the anterior and to the right (of the patient's neck).

Remember that to the right of the patient's neck is mostly downward toward the bench.

**No. 45. Subluxation P. R. S. (Axis to 5th Cer.)
From the side opposite to laterality.**

Most of the directions for P. R. will apply.

Stand at the LEFT of the patient, (side opposite to laterality).

Stand with the back to the patient, alongside and to the inferior.

Turn the patient's face away (to the right).

Check up on the patient's posture.

One—With the right hand on the patient's forehead, palpate with the left hand, with the palm toward the patient's face and the little finger leading down the spine.

Two—Find the P. R. S. aspect of the right prong for spot of contact.

Three—Take standing position more to the superior, with the episternal notch above the median line of the body.
(Note—the median line of the body, prolonged, would approximately pass through the patient's ear as he lies on the bench).

Have the episternal notch well to the superior of the point of contact.

Four—Roll in Nail Point Two of the right hand with the 5th metacarpal bone at right angles to the spine.

Five—Place Hammer Hand correctly.

Six—Toggle technic.

Seven—Drive to the anterior, left and inferior to the patient's neck at that point.

**No. 46. Subluxation P. R. I. (Axis to 5th Cer.)
From the side opposite to laterality.**

Stand at the LEFT of the patient.

Stand with the back to the patient, alongside and to the inferior.

Turn the patient's face to the right.

See to patient's posture, always, before adjusting.

One—Counting technic (see foregoing drills).

Two—Find the P. R. I. aspect of the right prong.

Three—Take standing position more to the inferior, with the episternal notch above median line of the body and well to the inferior of the spot of contact.

Four—Nail Hand technic (see foregoing drills).

Five—Hammer Hand Technic.

Six—Toggle technic.

Seven—Drive to anterior, left and superior to the patient's neck.

**No. 47. Subluxation P. L. S. (Axis to 5th Cer.)
From the side opposite to laterality.**

Stand at the RIGHT of the patient.

Stand with back to the patient, alongside and inferior.

Turn patient's face to the left.

One—Counting technic. (See foregoing drills).

Two—Find the P. L. S. aspect of the left prong.

Three—Move more to the superior so that the episternal notch is above the median line of patient and well to the superior of the point of contact.

Four—Nail Hand technic. (See foregoing drills).

Five—Hammer Hand technic.

Six—Toggle technic.

Seven—Drive anterior and to the right and inferior of the patient's neck.

**No. 48. Subluxation P. L. I. (Axis to 5th Cer.)
From the side opposite to laterality.**

Stand at the RIGHT of the patient.

Stand with back to the patient, alongside and inferior.

Turn the patient's face to the left.

One—Counting technic. (See foregoing drills).

Two—Find the P. L. I. aspect of the left prong.

- Three—Move more to the inferior so that the episternal notch is above the median line of the patient and well to the inferior to the point of contact.
- Four—Roll in Nail Point Two of the left hand.
- Five—Hammer Hand technic.
- Six—Toggle technic.
- Seven—Drive to anterior, right and superior to the patient's neck.

Art. 108. THE ATLAS. TOGGLE RECOIL ON ATLAS CONTACTS.

No. 49. Subluxation R. P.

Stand at the RIGHT side of the patient, (the side of laterality).

Turn the patient's face to the side of laterality, (to the right).

Patient should have the proper posture for this group.

One—Standing inferior, alongside the patient, palpate with both hands; the left hand palpating the axis and the right hand palpating the right transverse process of the atlas.

Two—When the right transverse process of atlas and the bifurcation cleft of the axis have been found, with the forefinger of the hand upon the axis, measure half-way between the two points found in Count One.

The measuring forefinger now becomes the pointer finger. Fold up the rest of the fingers and rest the knuckles upon the back or neck, with the pointer finger extending toward the superior. If care is used in these minute directions, no difficulty will be found later in placing the nail point.

Three—Remain in approximately the same standing position, but move enough so that the episternal notch will be above the median line of the patient's body and to the right and posterior to the patient's neck where it joins the head. (Be careful in the use of these directions).

Four—Roll in Nail Point Two with the fifth metacarpal at right angles to the spine in the neck. (Remember that it curves in the neck).

Five—Hammer Hand technic.

Six—See that the line through the elbows is at right angles, approximately to the spine at the point of contact, (not at right angles to the bench).

Seven—Drive in a direction opposite to the listing, that is,

to the left and to the anterior of the patient's neck, where it joins the head.

With this first drill as a model for reference, the others will be more abbreviated.

The "median line of the body" is assumed to be prolonged through the head approximately passing through the ear as the patient lies on the bench.

No. 50. Subluxation, R. P. S. Atlas.

Stand at the patient's right. SIDE OF LATERALITY.

Turn the patient's face to the right. Palpate as in Drill No. 49.

One—Atlas palpation.

Two—Measure midway with forefinger of the hand on the axis, from the spinous process of axis to transverse process of atlas, then from the point found by bisection, measure one-fourth inch to the superior.

Forefinger then becomes Pointer Finger.

Rest the knuckles on the neck with Pointer Finger toward the superior.

Three—Remain in the same standing position except to move forward more to the superior so that the episternal notch will be above the median line of the patient's body, superior to the point of contact.

Four—Roll in Nail Point Two, with the 5th metacarpal at right angles to the spine. (Be very careful to do this).

Five—Hammer-Hand technic.

Six—Have the arms at right angles to the spine.

See that the toggles are even.

Seven—Drive in a direction opposite to the listing, that is, Drive L. A. I.

See Drill No. 49 for general points.

No. 51. Subluxation, R. P. I. Atlas.

Stand at the right, which is the SIDE OF LATERALITY.

Turn the patient's face to the right.

Palpate as described in Drill No. 49.

One—Palpation technic.

Two—Bisect the distance between "axis" and "atlas" and from the point found, measure one-fourth inch to the inferior.

Hold this point with the forefinger, which is now Pointer Finger.

Three—Remain alongside the patient but move more to the inferior so that the episternal notch will be above the median line of the patient and somewhat to the inferior of the point of contact.

Four—Roll in Nail Point Two with the 5th metacarpal at right angles to the spine.

Use low arch as in axis adjusting but do not allow the palm to "snowshoe" on the neck.

Five—Hammer Hand technic.

Six—Have the arms approximately at right angles to the spine.

Seven—Drive to left, anterior and superior.

See Drill No. 49 for general directions.

No. 52. Subluxation, R. Atlas.

Stand at the RIGHT SIDE.

Turn the patient's face to the right.

Palpate as described in Drill 49.

One—Palpation technic.

Two—Bisect the distance between "axis" and "atlas" and hold this point with the forefinger, which did the bisecting and is now Pointer Finger.

Three—Remain alongside the patient, but move so that the episternal notch is somewhat to the right of the median line and the line of drive calculated, so that it passes exactly from right to left of the patient's neck where it joins the head.

Four—Roll in Nail Point Two with the 5th metacarpal at right angles to the spine.

Five—Hammer Hand technic.

Six—Have the arms at right angles to the spine, approximately.

Seven—Drive to the left. (Not to the patient's body or the bench but relative to the head and neck).

No. 53. Subluxation, R. S. Atlas.

Stand at the RIGHT of the patient.

Turn the patient's face to the RIGHT.

One—Palpate as directed in Drill 49.

Two—Bisect the distance between "axis" and "atlas" and from point of bisection, measure one-fourth inch to the superior. Hold this point with the forefinger.

Three—Remain alongside the patient but move forward to the superior so that the episternal notch will be somewhat to the right of the median line of the patient and to superior of the point of contact.

Four—Roll in Nail Point Two, with the 5th metacarpal at right angles to the spine.

Five—Hammer Hand technic.

Six—Have the arms at right angles to the spine approximately.

Seven—Drive left and inferior (directions relative to patient's head and neck.)

See Drill 49 for general directions.

No. 54. Subluxation, R. I. Atlas.

Stand at the RIGHT.

Turn patient's face to the right.

One—Palpate as directed in Drill No. 49.

Two—Bisect the distance between "axis" and "atlas" and from the point of bisection, measure one-fourth inch to the inferior. Hold this point with the forefinger.

Three—Remain alongside the patient but move back to the inferior so that the episternal notch will be somewhat to the right of the median line of the patient's body and inferior to the point of contact.

Four—Roll in Nail Point Two, with the fifth metacarpal at right angles to the spine.

Five—Hammer Hand technic.

Six—Have the arms at right angles to the spine approximately.

Seven—Drive left and superior, (relative to the neck and head).

See Drill No. 49 for general directions.

No. 55. Subluxation, L. P. Atlas.

Use Drill No. 49 reversed according to laterality.

No. 56. Subluxation, L. P. S. Atlas.

Use Drill No. 50 reversed according to laterality.

No. 57. Subluxation, L. P. I. Atlas.

Use Drill No. 51 reversed according to laterality.

No. 58. Subluxation, L. Atlas.

Use Drill No. 52 reversed according to laterality.

No. 59. Subluxation, L. S. Atlas

Use Drill No. 53 reversed according to laterality.

No. 60. Subluxation, L. I. Atlas.

Use Drill No. 54 reversed according to laterality.

No. 61. Subluxation, R. P. Atlas.

Adjusted from the SIDE OPPOSITE TO LATERALITY.

Stand at the LEFT of the patient.

Turn patient's face to the right.

Stand with the back to the patient, to the inferior and alongside, in such a manner that you can turn facing the superior easily.

Then proceed as in Drill No. 49.

No. 62. Subluxation, R. P. S. Atlas.

Adjusted from the SIDE OPPOSITE TO LATERALITY.

Stand at the LEFT of the patient.

Turn patient's face to the right.

Stand with the back to the patient, alongside and inferior and turn so as to face the superior.

Then proceed as in Drill No. 50.

No. 63. Subluxation, R. P. I. Atlas.

Adjusted from the SIDE OPPOSITE TO LATERALITY.

Stand at the LEFT of the patient.

Turn patient's face to the right.

Stand with the back to the patient, alongside and inferior, and turn so as to face the superior.

Then proceed as in Drill No. 51.

No. 64. Subluxation, R. Atlas.

Adjusted from the SIDE OPPOSITE TO LATERALITY.

Stand at the LEFT of the patient.

Turn patient's face to the right.

Stand with the back to the patient, alongside and to the inferior; turn so as to face the superior.

Proceed as in Drill No. 52.

No. 65. Subluxation, R. S. Atlas.

Adjusted from the SIDE OPPOSITE TO LATERALITY.

Stand at the LEFT of the patient.

Turn patient's face to the right.

Stand with the back to the patient, alongside and inferior, and turn so as to face the superior.

Proceed as in Drill No. 53.

No. 66. Subluxation, R. I. Atlas.

Adjusted from the SIDE OPPOSITE TO LATERALITY.

Stand at the LEFT of the patient.

Turn patient's face to the right.

Stand with the back to the patient, alongside and inferior, and turn so as to face the superior.

Proceed as in Drill No. 54.

No. 67. Subluxation, L. P. Atlas.

Adjusted from the SIDE OPPOSITE TO LATERALITY.

Stand at the RIGHT of the patient.

Use Drill No. 61 and No. 49 reversed according to laterality.

No. 68. Subluxation, L. P. S. Atlas.

Adjusted from the SIDE OPPOSITE TO LATERALITY.

Use Drill No. 62 and No. 50 reversed according to laterality.

No. 69. Subluxation, L. P. I. Atlas.

Adjusted from the SIDE OPPOSITE TO LATERALITY.

Use Drill No. 63 and No. 51 reversed according to laterality.

No. 70. Subluxation, L. Atlas.

Adjusted from the SIDE OPPOSITE TO LATERALITY.

Use Drill No. 64 and No. 52 reversed according to laterality.

No. 71. Subluxation, L. S. Atlas.

Adjusted from the SIDE OPPOSITE TO LATERALITY.

Use Drill No. 65 and No. 53 reversed according to laterality.

No. 72. Subluxation, L. I. Atlas.

Adjusted from the SIDE OPPOSITE TO LATERALITY.

Use Drill No. 66 and No. 54 reversed according to laterality.

No. 73. Subluxation, R. A. Atlas.

ALWAYS adjusted from the SIDE OF LATERALITY.

Stand at the RIGHT of the patient.

Turn the face to the right.

One—Stand inferior to palpate; palpate as directed in No. 49.

Two—with the forefinger measure two-thirds the distance between "axis" and "atlas." With the point held with the forefinger.

Three—Take standing position opposite so that the point of contact will be opposite the inner surface of the right knee, and well back from the patient.

Four—Roll in Nail Point Two with the 5th metacarpal at right angles to the spine.

Note—Nail Point Two in this case should be on the lateral, Palmer aspect of the 5th metacarpal bone about one-fourth its length from nail point one, approximately.

Five—Hammer Hand technic. Be careful in this especially.

Six—Have the arms approximately parallel to the spine.

Seven—Drive posterior mostly, and toward the left of the patient's neck.

Use Torque with nail hand elbow swinging away, or toward the superior.

No. 74. Subluxation, R. A. S. Atlas.

ALWAYS adjusted from the SIDE OF LATERALITY.

Stand at the RIGHT of the patient.

Turn the face to the right.

One—Stand inferior to palpate; palpate as directed in No. 49.

Two—With forefinger, find a point two-thirds the distance from the "axis," and from this measure one-fourth inch to superior.

Three—Take standing position opposite and well back from the patient.

Stand so that the point of contact will be opposite the inner surface of the right knee. Lean to the superior.

Four—Roll in Nail Point Two as described in Drill No. 73.

Five—Hammer Hand technic.

Six—Arms should be almost parallel to the spine; slightly oblique.

Seven—Drive mostly posterior, to the left and to the inferior.

Much depends upon the Torque, in which the nail hand elbow swings to the superior while the nail point drives to the inferior.

See Drill No. 73 and No. 49.

No. 75. Subluxation, R. A. I. Atlas.

ALWAYS adjusted from the SIDE OF LATERALITY.

Stand at the RIGHT of the patient.

Turn the face to the right.

One—Stand inferior to palpate; palpate as in Drill No. 49.

Two—With the forefinger of the "axis hand" find a point two-thirds the distance from the "axis" to the "atlas" and from this point measure one-fourth inch to the inferior.

Three—Assume standing position opposite and well back from the patient.

Four—Roll in Nail Point Two as directed in Drill 73.

Five—Hammer Hand technic.

Six—Have the arms 45 degrees oblique to the spine.

Seven—Drive mostly posterior, to the left and toward the superior. The Torque, with the nail hand elbow swinging to the superior is of great assistance.

No. 76. Subluxation, L. A. Atlas.

Use Drill No. 73 reversed according to laterality.

No. 77. Subluxation, L. A. S.

Use Drill No. 74 reversed according to laterality.

No. 78. Subluxation, L. A. I.

Use Drill No. 75 reversed according to laterality.

Art. 109. TOGGLE RECOIL ON SACRUM CONTACTS.

No. 79. Sac. B. P.

May be adjusted from either side.

One—Palpate to the first tubercle of the sacrum, standing opposite.

Two—Find the posterior extremity. Change Pointer Fingers.

Three—Stand opposite with the point of contact opposite the inner surface of the knee which is to the inferior. Lean toward the superior.

Four—Place Nail Point One as on dorsals.

Use low arch but do not let the hand "snow-shoe" on the back.

Five—Hammer Hand technic.

Six—Have the arms approximately parallel to the spine.

Seven—Adjust to the anterior.

No. 80. Sacrum Base Anterior; Sac. B. A.

See No. 81.

No. 81. Sacrum Apex Posterior; Sac. A. P.

May be adjusted from either side.

One—Palpate to the 4th tubercle of the sacrum.
Stand opposite to palpate.

Two—Find the posterior extremity of fourth tubercle.
Do not change Pointer Fingers.

Note—If the fourth tubercle is absent on account of a

long sacral hiatus, Nail Point Two may be used at right angles to the spine and bridging across the hiatus.

Three—Stand opposite so that the episternal notch is over the median line and to the superior of the point of contact.

Stand so the point of contact is opposite the inner surface of the knee, which is to the inferior, and lean toward the superior.

Four—Place Nail Point One with a low arch.

Five—Hammer Hand technic.

Six—Have arms approximately parallel to the spine.

Seven—Drive anterior.

No. 82. Sacrum Base posterior on the right side.

Sac. B. P. R.

Stand on the LEFT side, and opposite to palpate.

One—Palpate to the second tubercle, with the right hand.

Two—Keeping the middle finger on the tip of the second tubercle, with the forefinger of the same hand, palpate to the right until the crest of the ilium is found. Then keeping the middle finger on the 4th tubercle, and the forefinger on the crest of the ilium, bisect the distance between them with the Pointer Finger of the left hand, which now becomes the real pointer finger. This will give a contact area which is soft, being over considerable muscle.

Three—Stand opposite but very close, so that the episternal notch is above the median line superior to the point of contact.

Four—Place Nail Point One with the 5th metacarpal bone lying in the fossa at the side of the ridge of tubercles and extending toward the superior. This makes the placing of the 5th metacarpal exactly parallel to the spine, on the right side.

Five—Place Hammer Hand with adaptation to the unusual position of the nail hand.

Six—Arms parallel to the spine.

Seven—Drive to the anterior.

Use Drill No. 82 reversed according to laterality.

No. 83. Sacrum base posterior on the left. Sac. B. P. L.

Use Drill No. 82 reversed according to laterality.

Art. 110. TOGGLE RECOIL ON ILIUM.

No. 84. Subluxation, Right Ilium posterior. Rt. Il. P.

Stand on the LEFT side, to palpate and adjust.

Stand opposite to palpate.

- One—Palpate to the 2nd tubercle of the sacrum, with right hand.
- Two—With the middle finger hold this point and with the forefinger of the same hand, palpate to the right until the posterior superior spine of the ilium is found. Then with the same finger measure to the superior along the crest of the ilium, one inch—this is the spot of contact.
Change Pointer Fingers.
- Three—Stand opposite and well back and lean to the superior.
- Four—Place Nail Point One with the 5th metacarpal at right angles to the spine and with a low arch, but do not allow the palm to lie flat.
- Five—Place Hammer Hand.
- Six—Arms parallel to the spine approximately.
- Seven—Drive to right very much and some to the anterior.

No. 85. Subluxation, Right Ilium posterior and superior.
Rt. Il. P. S.

- Stand on the LEFT side, to palpate and adjust.
Stand opposite to palpate.
- One—Palpate to the 2nd tubercle of the sacrum with the right hand.
- Two—Same as Count Two in Drill 84.
- Three—Stand 45 degrees to the superior and well back from the patient.
- Four—Place Nail Point One with the 5th metacarpal at right angles to the spine and with a low arch, but do not allow the palm to lie flat.
- Five—Hammer Hand technic.
- Six—Have the arms oblique to the spine 45 degrees.
- Seven—Drive to the right, inferior and anterior.

No. 86. Subluxation, Left Ilium posterior. Lft. Il. P.
Use Drill No. 84 reversed according to laterality.

No. 87. Subluxation, Left Ilium posterior and superior.
Lft. Il. P. S.

Use Drill No. 85 reversed according to laterality.

Art. 111. TOGGLE RECOIL ON SINGLE TRANSVERSE CONTACT.

Dorsal Region, for correcting rotations. Can be used only on the transverse processes of the 1st to 10th dorsals inclusive. Superiority or inferiority can be taken care of by leaning to the superior or inferior, as the case may be.

No. 88. Subluxation, P. R. with Left Rotation. 1D to 10D, Inclusive.

Stand on the side of laterality of spinous process.

Turn the face to the LEFT.

Stand opposite to palpate; palpate with the left hand.

One—Count to the vertebra to be adjusted. (see Drill No. 90, also)

Two—Measure for contact as directed in Article 37 of Listing and Contacts.

Three—Stand opposite and close, so that the episternal notch is directly posterior to the spot of contact.

Four—Place Nail Point One with the 5th metacarpal at right angles to the spine.

Five—Hammer Hand technic.

Six—Arms parallel to the spine.

Seven—Drive to the anterior.

No. 89. Subluxation, P. L. with Right Rotation. 1D to 10D Inclusive.

Use Drill No. 88 reversed according to laterality.

Art. 112. TOGGLE RECOIL ON DOUBLE TRANSVERSE CONTACTS, TO CORRECT ADJACENT POSTERIOR SUBLUXATIONS WITH OPPOSITE LATERALITY.

This is an Eight Count Drill.

Always stand on the side of the superior subluxation.

For use on 1st dorsal to 10th dorsal, inclusive.

No. 90. Subluxations, Upper, P. R.; Lower P. L.

Stand on the right side. Stand close to adjust.

Stand opposite to palpate; palpate with the left hand.

Turn the patient's face to the left (away from you.)

One—Count to the Upper Subluxation, which is P. R.

Two—Measure for its transverse contact on the left side by holding the middle finger on the tip of the spinous process, and with the forefinger measure upward and toward the left (away from you.) (The measurements in the different parts of the dorsal region vary, so it will be necessary to see Art. 37 of Listing and Contacts to get the distances.)

Three—Change Pointer Fingers and hold this spot of contact with the forefinger of the right hand.

Four—Palpate to Lower Subluxation, which is P. L. with left hand.

Five—Measure for its transverse contact on the right side by holding the middle finger on the tip of the spinous process, and with the forefinger of the same hand,

measure upward and to the right (toward you.) (See Art. 37 for correct measurements.)

Then both points of contact will be held with the fore-fingers, as Pointer Fingers.

Six—With the forefinger of the hand nearer to you (the left) press upon the skin so as to make an indentation or white spot and quickly place Nail Point One of the same hand.

Seven—With the forefinger of the hand farther away from you (the right) press upon the skin to make a white spot, and quickly place Nail Point One of the same hand. The arms will now be crossed, with the elbows bent as in toggle recoil but with two points of contact instead of one.

Eight—With the episternal notch directly posterior to a point midway between your two nail points.

Drive to the anterior, allowing for the slope of the back.

No. 91. Subluxation, Upper, P. L.; Lower P. R.

Use No. 90 reversed according to laterality.

**Art. 113. TOGGLE RECOIL ON SINGLE VERTEBRA
SUBLUXATED POSTERIOR WITH DOUBLE
TRANSVERSE CONTACT. 1D to 10D Inclusive.**

Adjustor may stand on either side.

Patient's face turned away from the adjustor.

No. 92. Dorsal Vertebra posterior. Double Transverse Contact.

One—Count to vertebra to be adjusted.

Two—Measure as in Drill No. 90. Measure away from you.

Three—Change Pointer Fingers and hold the point of contact with the forefinger of the hand which was not used for palpation.

Four—Measure as in Drill No. 90. Measure toward you. Hold the point of contact with the forefinger of the palpating hand.

Five—Take standing position 45 degrees to inferior, with episternal notch posterior to a point midway between the two spots of contact.

Six—With the forefinger of the hand nearest to you, indent the skin and place Nail Point One of the same hand quickly.

Seven—With the forefinger of the hand farther from you, indent the skin and place Nail Point One of the same hand quickly.

Eight—Drive to the anterior, allowing for the slope of the back.

For correct measurements for transverse contacts see Art. 37, this book.

**Art. 114. TOGGLE RECOIL ON LAMINA CONTACT,
used on 11th and 12th Dorsals, Old Style Method.**

**No. 93. Subluxation, 11th (or 12th) Dorsal P. R. with left
Rotation.**

Stand on the RIGHT side.

Stand opposite to palpate; stand close to adjust.

One—Palpate to the vertebra to be adjusted.

Two—Keeping the middle finger on the tip of the spinous process, with the forefinger find the interspinous space immediately above, and measure away from you (to the left) a very short distance; just enough to let the nail point be clear of the spinous processes.

Three—Take standing position opposite and close, so that the episternal notch will be posterior to the point of contact.

Four—Place Nail Point One with the 5th metacarpal bone exactly at right angles to the spine.

Five—Hammer Hand technic.

Six—Arms parallel to the spine.

Seven—Adjust to the anterior.

**No. 94. Subluxation, 11th (or 12th) Dorsal P. L. with
Right Rotation.**

Use Drill No. 93 reversed according to laterality.

**Art. 115. TOGGLE RECOIL ON MAMMILLARY CON-
TACT, Used in the Lumbar Region to Correct
Rotated Subluxations with Laterality.**

For 4th and 5th Lumbar, change Pointer Fingers, which changes Nail Hands, just as for Spinous Process Contacts.

**No. 95. Subluxation, P. R. with Left Rotation. Lumbar
Region.**

One—Stand on right to palpate; palpate with left hand.
Count to the vertebra to be adjusted.

Two—Keeping the middle finger on the tip of the spinous process, with the forefinger of the same hand, find the interspinous process, immediately above, and measure away from you (to the left) three-fourths inch or one inch, (if 4th or 5th Lumbar, change pointer fingers.) Hold this point with the forefinger as Pointer Finger.

Three—Take standing position opposite and close, with episternal notch to posterior of point of contact.

Four—Place Nail Point One with the 5th metacarpal exactly at right angles to spine.

Five—Hammer Hand technic.

Six—Arms parallel to spine.

Seven—Drive Anterior.

No. 96. Subluxation, P. L. with Right Rotation. Lumbar Region

Use Drill No. 95 reversed according to laterality.

**Art. 116. TOGGLE RECOIL ON LAMINA CONTACTS;
Used on Dorsals, Lumbars.**

The Atlas has no other contact; and it is also used on rotated Sacrum. This is a system of contacts used with the Toggle Recoil, which has been developed since the advent of the NCM and has been found to be especially useful on Tilted Subluxations, as well as on rotations and some Posterior Subluxations with laterality.

For measurements see Art. 40. In order to fully appreciate and understand these drills it will be necessary for the student to read the fore part of this book. It is impossible, without making the drills tediously long to incorporate in each and every drill the measurement for each and every vertebra. Therefore the student should have a fair knowledge of the measurements in order to use these drills with understanding.

Region: Second Dorsal to Fifth Lumbar inclusive.

No. 97. Subluxation, P. L. with a Right Rotation. Dorsals and Lumbar.

Stand on the RIGHT side. (on the side of rotation.)

Stand opposite to palpate; palpate with left hand.

Posture the same as for any other subluxation in the same region.

One—Count to the vertebra to be adjusted.

Two—Measure toward you as directed in Art. 40. Hold the middle finger on the tip of the spinous process, and with the forefinger of the same hand, measure upward and toward you as for transverse contacts.

Then with the forefinger of the right hand, bisect the distance between the two finger tips of the left hand. The point found is the lamina contact spot. It is essentially the same for all dorsals (except 11th and 12th), therefore Count Two of this drill will serve as a model for succeeding ones. In measuring Pointer Fingers become changed.

Three—Turn the back to the patient, standing alongside and inferior, and facing the superior.

Four—Place Nail Point One, with the 5th metacarpal bone lying parallel to the spine in groove between the row of spinous processes and the row of transverse process extremities. This will be a soft contact, since it lies over several inches of muscle. The point to be remembered is that in using these lamina contacts, the fifth metacarpal bone is always laid parallel to the spine.

Five—Hammer Hand technic.

Six—The arms should be at right angles to the spine.

Seven—Drive to the anterior. Be sure to have the episternal notch exactly posterior to point of contact, allowing for the slope of the back.

This Drill will serve as a model in other Dorsal and Lumbar, Toggle Recoil on Lamina Contact adjustments.

No. 98. Subluxation, P. L., Right Rotation, Tilted Inferior on the Right.

Stand on the RIGHT side, the side of rotation.

Stand opposite to palpate; palpate with the left hand.

One—Count to the vertebra to be adjusted.

Two—Find the point of contact exactly as directed in Count Two of Drill No. 97.

Three—Assume standing position with the back to the patient, alongside and well to the inferior, in order to have the episternal notch to the inferior of the point of contact.

Four—Place Nail Point One exactly as directed in Count Four of the preceding drill.

Five—Hammer Hand technic.

Six—Arms at right angles to the spine.

Seven—Drive anterior and to the superior.

No. 99. Subluxation, P. L., Right Rotation, Tilted Superior on the Right.

Stand on the RIGHT side, the side of rotation. Patient's face to left.

Stand opposite to palpate; palpate with the left hand.

One—Count to the vertebra to be adjusted.

Two—To find contact. Measure toward you as directed in Art. 40. Hold the middle finger on the tip of the spinous process, and with the forefinger of the same hand (left) measure upward and toward you for the transverse contact. Then with the forefinger of the right hand, bisect the distance between the two finger tips of the left hand. The point found is the lamina contact spot, but it is necessary to replace the forefinger of the right hand with the pointer finger of the left hand, thus changing Pointer Finger.

Three—Assume standing position alongside and to the SUPERIOR and turn so as to face the inferior, so that the episternal notch is superior to the point of contact.

Four—Place Nail Point One of the right hand with the 5th metacarpal parallel to the spine and pointing to the inferior, similar to the way it is placed in the preceding drill.

Five—Hammer Hand technic.

Six—Arms at right angles to the spine.

Seven—Drive to anterior and to the inferior.

No. 100. Subluxation, P. R. with Left Rotation.

Use Drill No. 97 reversed according to laterality.

No. 101. Subluxation, P. R., with Left Rotation, Tilted Inferior on the Left.

Use Drill No. 98 reversed according to laterality.

No. 102. Subluxation, P. R., with Left Rotation, Tilted Superior on the Left.

Use Drill No. 99 reversed according to laterality.

No. 103. Subluxation, P. L., with centrum Tilted Inferior on the Right.

Stand on RIGHT side. Patient's face to the right.

Stand opposite to palpate; palpate with the left hand.

One—Count to the vertebra to be adjusted.

Two—Find contact spot exactly as directed in Drill No. 97.

Three—Assume standing position 45 degrees to the inferior and well back, facing the patient.

Four—Place Nail Point One as directed in Drill No. 97.

Five—Hammer Hand technic.

Six—Arms 45 degrees oblique to the spine.

Seven—Drive to the left principally and to anterior and superior.

Direct the drive against the base of the spinous process somewhat.

No. 104. Subluxation, P. L., with centrum Tilted Superior on the Right.

Stand on the right side. Patient's face to the left.

Stand opposite to palpate; palpate with the left hand.

One—Count to the vertebra to be adjusted.

Two—Find contact spot exactly as directed in Drill No. 99.

Three—Assume standing position 45 degrees to the superior and well back, facing the patient.

Four—Place Nail Point One exactly as directed in Drill 99.

Five—Hammer Hand technic.

Six—Arms 45 degrees oblique to the spine.

Seven—Drive to left and to the anterior and inferior.

No. 105. Subluxation, P. R. with centrum Tilted Inferior on Right.

Use Drill No. 103 reversed according to laterality.

No. 106. Subluxation, P. R. with centrum Tilted Superior on the Right.

Use Drill No. 104 reversed accordingly.

Art. 117. TOGGLE RECOIL ON LAMINA CONTACTS IN THE CERVICAL REGION. Axis to First Dorsal, Inclusive. The High Arch Method.

No. 107. Subluxation, P. L. with Right Rotation.

Stand on the RIGHT side; Patient's face to the right.

Stand opposite to palpate; palpate with the left hand.

One—Count to the vertebra to be adjusted.

Two—It will be necessary for the student to get the correct measurements from Art. 40.

Keeping the middle finger on the cleft of the spinous process, with the forefinger of the same hand, measure upward and toward you (to the right.)

In the First Dorsal Group the Pointer Fingers are changed.

The adjustor may or may not change Pointer Fingers on the others, just as his judgment determines.

Three—Assume standing position opposite and not too close to the patient.

Four—Place Nail Point One with the 5th metacarpal EXACTLY at right angles to the spine, with AN EXTREMELY HIGH ARCHED HAND. Care MUST BE TAKEN not to make any contact on the spinous processes.

The fingers should rest on the neck on the side opposite, but if the adjustor finds the high arch impossible it would be better to let the fingers wave in the air than to risk driving against the spinous process.

Five—Hammer Hand technic.

Six—Arms parallel to the spine.

Seven—Drive to the anterior.

No. 108. Subluxation, P. L., Right Rotation, Tilted Superior on the Right.

Use Drill No. 107, but lean to the superior; or stand 45 degrees to the superior.

No. 109. Subluxation, P. L., Right Rotation, Tilted Inferior on the Right.

Use Drill No. 107 but lean to the inferior; or stand 45 degrees to the inferior.

No. 110. Subluxation, P. R., Left Rotation.

Use Drill No. 107 reversed according to laterality.

No. 111. Subluxation, P. R., Left Rotation. Tilted Superior on Left.

Use Drill No. 108 reversed according to laterality.

No. 112. Subluxation, P. R., Left Rotation. Tilted Inferior on Left.

Use Drill No. 109 reversed according to laterality.

**Art. 118. TOGGLE RECOIL ON LAMINA CONTACT.
Low Arch Method.****No. 113. Subluxation, P. L., with Right Rotation.**

Stand on the LEFT; patient's face to the right.

Stand with back to the patient, alongside and inferior, to palpate.

Palpate with the left hand, palm toward the face, little finger leading downward.

One—Count to the vertebra to be adjusted.

Two—Find the contact as described in Art. 40. Keeping the middle finger on the cleft of the spinous process, with the forefinger of the same hand, measure upward and toward the right.

Pointer Fingers are changed, or not, according to which nail hand the adjustor prefers to use.

See Count Four, this drill.

Three—Assume standing position opposite and very close leaning over to the right of the patient.

Four—Place Nail Point One with the 5th metacarpal exactly at right angles to the spine.

If Pointer Fingers are changed, the fingers will droop to the inferior. If Pointer Fingers are not changed the fingers, in the cervicals will rest on the patient's face, which may be objectionable, but is a very good contact, nevertheless.

With this method the entire hand is on the other side of the spinous processes from the adjustor, and the very high arch is not necessary, but an arched hand should be used, to avoid striking other bony structures.

Five—Hammer Hand technic.

Six—Arms parallel to the spine.

Seven—Drive to anterior.

No. 114. Subluxation, P. L., Right Rotation. Tilted Superior on the Right.

Use Drill No. 113 but lean to the superior.

No. 115. Subluxation, P. L., Right Rotation. Tilted Inferior on the Right.

Use Drill No. 113 but lean to the inferior.

No. 116. Subluxation, P. R., Left Rotation.

Use Drill No. 113 reversed according to laterality.

No. 117. Subluxation, P. R., Left Rotation, Tilted Superior on the Left.

Use Drill No. 114 reversed according to laterality.

No. 118. Subluxation, P. R., Left Rotation, Tilted Inferior on the Left.

Use Drill No. 115, reversed according to laterality.

Art. 119. THE LOW ARCH METHOD STANDING ON THE SIDE OF ROTATION.**No. 119. Subluxation, P. L., Right Rotation.**

Stand on the right side; Patient's face to the right.

Stand opposite to palpate; palpate with the left hand.

One—Count to the vertebra to be adjusted.

Two—Find the contact spot as in Drill 107.

Change Pointer Fingers.

Three—Assume standing position with the back to the patient, alongside and to the inferior, and facing the superior somewhat.

Four—Place Nail Point One with the 5th metacarpal exactly at right angles to the spine, and extending to the right. This will make a peculiar placing of the hammer hand necessary.

Five—Place Hammer Hand rather more to the back of the wrist than usual.

Six—Arms will have to be placed obliquely to the spine from necessity.

Seven—Drive anterior.

No. 120. Subluxation, P. L., Right Rotation, Tilted Superior on the Right.

Use Drill No. 119 but lean to the superior.

No. 121. Subluxation, P. L., Right Rotation, Tilted Inferior on the Right.

Use Drill No. 119 but stand more to the inferior.

No. 122. Subluxation, P. R., Left Rotation.

Use Drill No. 119 reversed according to laterality.

No. 123. Subluxation, P. R., Left Rotation, Tilted Superior on the Left.

Use Drill No. 120 reversed according to laterality.

No. 124. Subluxation, P. R., Left Rotation, Tilted Inferior on the Left.

Use Drill No. 121 reversed according to laterality.

Art. 120. TOGGLE RECOIL WITH BODY DROP.**C O N C L U S I O N**

The Body Drop is a method whereby the weight of the body is used to support the adjustic thrust, by holding the upper end of the toggle machine steady. There are a number of processes to be timed correctly, in order to make the Body Drop effective. It requires considerable practice with careful analysis of this method.

The Body Drop is best acquired by a series of drills in a progressive order. One should not hasten through these progressive drills until each successive one has been mastered.

First Body Drop Drill

Select a bench or any other surface about the height of the knee which is well padded. Bend over and place the hands flat upon this surface with the elbows straight. Raise the trunk as high as possible, moving it between the shoulders; then move it downward as far as possible between the shoulders. Practice this many times for many days, until the shoulders have become limber and the trunk will move between them the maximum distance. At first, practice it very slowly, gradually acquiring speed and force.

Second Body Drop Drill

Lean over, place the hands flat upon the bench, with the arms bent about one hundred and forty degrees at the elbows, then practice the foregoing drill progressively, without altering the bend of the elbows. At first practice slowly, gradually acquiring speed.

Third Body Drop Drill

Place hands upon the bench as for adjusting, with the elbows bent, practice in the same manner as in Drill Two.

Fourth Body Drop Drill

Place hands upon the bench as for adjusting, raise the trunk to maximum height between the shoulders. Lower it slowly to its lowest maximum position, at the same time slowly straightening the elbows until they are straight at

the same instant the trunk has reached its lowest position. This drill is much more difficult than the preceding ones and care should be taken to master it thoroughly with slow movement before speed is used and to be fully able to perform it before taking up drill Five.

Fifth Body Drop Drill

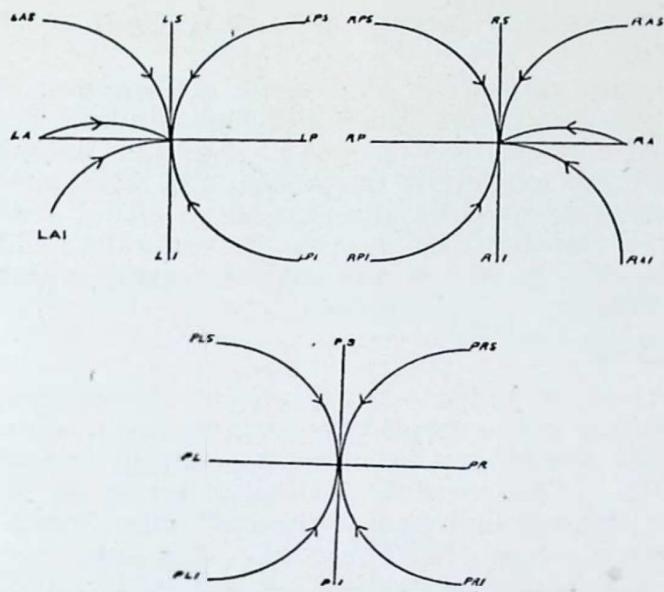
Proceed as in Drill Four with the exception that the arms become straight an instant before the body has reached its lowest position. As soon as this occurs, instant relaxation of the arms and body should take place. This will cause the elbows to bend and the hands will tend to fly upward, while the body continues to fall. To attempt to restrain the body or the arms or to pull the arms toward one, will tend to "cramp the style" of this movement. The succession of the moves which constitute this drill is imperceptibly close and gives it an easy "rolling" execution, if one practices it carefully and frequently.

Art. 121. TOGGLE RECOIL WITH THE TORQUE.

The Torque Practice Drill.

Place the hands as for adjusting on a surface at a convenient height. As the elbows are straightened (with or without Body Drop) give the Toggle Machine a slight twist in which one elbow moves toward and the other away from you. Practice turning the elbows both ways. The Torque is used on Posterior Subluxations of three directions, also on Tilted vertebrae. The Torque is used with the Spinous Process Contact in the dorsal, lumbar and cervical regions, and all atlas adjustments are best with it. The adjustor should keep his mind on the nail point, rather than on the elbows, tending to make it travel in the direction of a segment of a spiral. Care should be taken to make the adjustic force penetrate as in any other adjustment instead of merely twisting the integument of the back or neck. In this manner the spinous process is made to travel first toward the median line, then inferior or superior, (as the case may be) both directions being followed during anterior movement. These will be seen clearly on the accompanying diagram.

The standing positions are the same as for any Standard Drill. In the Cervical and Dorsal Groups, standing on the side of laterality, the Nail Hand elbow is moved away from the body of the adjustor, on subluxations with superiority, and toward the body on subluxations with inferiority. These will be reversed if standing on the side opposite to laterality. They are of course reversed for the Lumbar Group on account of the changing of Pointer Fingers and the consequent change of Nail Hands.



The Atlas Torque requires special consideration. The directions are shown in the accompanying diagrams. Here it will be seen that there are five directions for the right side and five for the left side. Here it will be seen also, that the Torque is used on two direction subluxations; namely R. A. and L. A. Thus, on standing on the side of laterality there is only one Torque on each side in which the elbow of the nail hand moves toward the adjustor.

The Torque need not have a series of special drills for it but can be practiced with the foregoing instructions in the regular Standard Drills.

Art. 122. COCCYGEAL METHODS.

The patient should be prepared by wearing a garment which opens in the back low enough to give access to the coccygeal region. When the patient is on the bench, further covering may be used by a drape such as nurses use. The adjustor should have his hands prepared by having them clean and finger nails, especially those of the middle fingers, trimmed very short. The patient may be palpated upon a palpation stool as for any other region of the spine and the coccyx listed as anterior at the tip, being bent at any of its joints or its union with the sacrum, is listed Coccyx Anterior. Laterality may be combined with anteriority and in this case is listed as Cocc. A. R. or Cocc. A. L. The coccyx may be bent with its tip to the posterior, the bend occurring at any joint, but usually at its junction with the sacrum. Laterality may be combined with this direction, and if so, the listing is Cocc. P. R. or Cocc. P. L. Any position of the coccyx which is too difficult for this mode of palpation

should have a spinograph taken of it—both lateral view and A. P. view.

Place the patient on the bench or benches with the pelvis raised very high, head and legs sloping downward; or the knee posture may be used. Further palpation may be done for investigative purposes with the patient in this posture. The adjustor may stand on either side, use either hand in a position that is most convenient to him. The nail point is the tip end of the middle finger, which is the adjusting finger.

To adjust:

For Cocc. A. palpate to tip end of the coccyx, then press with the tip of the middle finger into the integument beyond the tip of coccyx and by exerting enough pressure with the finger, it can be securely hooked anterior to the tip of the coccyx, with contact on integument only. Then arching the other hand, place Nail Point One at a point on the surface which is over the acute bend of the subluxated coccyx.

In giving the adjustic move, pull sharply upward with the adjusting finger, at the same instant pressing downward with Nail Point One of the other hand. When laterality is involved the direction of the pull with the adjusting finger is altered to take care of laterality. It may be necessary to repeat this adjustment several times to get results.

For Cocc. P. use Toggle Recoil on the sacrum base which is posterior, which nearly always accompanies this sort of coccygeal subluxation; or use Toggle Recoil on the tip of the coccyx with the fingers of the Nail Hand extending to the superior or use both of these contacts at the same time by crossing the arms. If laterality is involved, alter the direction of the drive on the tip of the coccyx.

C O N C L U S I O N

The ideal way to use Chiropractic Art, which is the Technic of Adjusting, is to combine it with the use of the NCM for the absolute discovery of the physical representative of the cause of dis-ease, namely, the subluxation; and the Spinograph for absolute listing of that subluxation. Find the location of the interference with transmission; use the Spinograph to show which vertebra is producing it and which way the vertebra is to be moved to release it. Then select a method or methods described in this book to accomplish the restoration of the vertebra to its normal position.

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